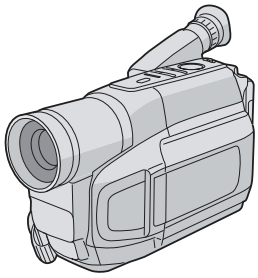
JVC

SERVICE MANUAL

COMPACT VHS CAMCORDER

GR-FXM39EK,GR-FXM39EX,GR-FXM39EY,GR-FXM39EZ, GR-FXM393EX,GR-FXM393EY,GR-FXM393EZ



Regarding service information other than these sections, refer to the service manual No. 86712 (GR-SXM49EX).
Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATION *(The specifications shown pertain specifically to the model GR-SXM49, FXM393, FXM39, SX25, FX15)*

Camcorder

General

Format : S-VHS (GR-SXM49/SX25 only)/ VHS PAL standard
Power source : DC 11 V ⎓ (Using AC Adapter)
DC 6 V ⎓ (Using battery pack)
Power consumption
Viewfinder on : 4.2 W (GR-SXM49/FXM393/FXM39 only)
4.0 W (GR-SX25/FX15 only)
LCD monitor* on : 4.7 W (GR-SXM49/FXM393/FXM39 only)
Video light** : 3.0 W
* Applicable models only.
** GR-SXM49/FXM393/SX25 only.
Signal system : PAL-type
Video recording system
Luminance : FM recording
Colour : Converted sub-carrier direct recording
Conforms to VHS standard
Cassette : S-VHS C / VHS C cassette
Tape speed
SP : 23.39 mm/sec.
LP : 11.70 mm/sec.
Recording time (max.)
SP : 60 minutes
LP : 120 minutes (with EC-60 cassette)
Operating temperature : 0°C to 40°C
Operating humidity : 35% to 80%
Storage temperature : -20°C to 50°C
Weight : Approx. 840 g (GR-SXM49/FXM393/FXM39 only)
Approx. 760 g (GR-SX25 only)
Approx. 750 g (GR-FX15 only)
Dimensions (W x H x D) : 113 mm x 117 mm x 199 mm (GR-SXM49/FXM393/FXM39 only)
108 mm x 117 mm x 199 mm (GR-SX25/FX15 only)
(with the LCD monitor* closed and with the viewfinder fully tilted downward)

* Applicable models only.

Pickup : 1/6" format CCD
Lens : F1.6, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens with auto iris and macro control, filter diameter 40.5 mm
Viewfinder : Electronic viewfinder with 0.5" black/white CRT White balance
White balance adjustment : Auto/Manual adjustment
Speaker (Applicable models only) : Monaural
LCD monitor (Applicable models only) : 2.5" diagonally measured, LCD panel/ TFT active matrix system

Connectors

Video : 1 V (p-p), 75 Ω unbalanced, analogue output (via Video output connector)
Audio : 300 mV (rms), 1 k Ω, analogue output (via Audio output connector)
S-Video (GR-SXM49/SX25 only) : **Y**: 1 V (p-p), 75 Ω, analogue output
C: 0.30 V (p-p), 75 Ω, analogue output

AC Adapter

Power requirement : AC 110 V - 240 V ~, 50 Hz/60 Hz
Output : DC 11 V ⎓, 1 A

Optional Accessories

- **Battery Packs BN-V12U, BN-V20U, BN-V400U**
- **Compact S-VHS (S-VHS C) Cassettes SE-C45/30**
- **Compact VHS (VHS C) Cassettes EC-60/45/30**
- **Active Carrying Bag CB-V7U**
- **Cassette Adapter C-P7U**

Some accessories are not available in some areas. Please consult your nearest JVC dealer for details on accessories and their availability.

GR-FXM39EK,GR-FXM39EX,GR-FXM39EY,GR-FXM39EZ,GR-FXM393EX,GR-FXM393EY,GR-FXM393EZ M3A622,M3A623

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No. 86719
2003/02

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ITEM \ MODEL	GR-SXM49EX	GR-FXM39EK	GR-FXM39EX	GR-FXM39EY	GR-FXM39EZ	GR-FXM393EX	GR-FXM393EY	GR-FXM393EZ
TAPE FORMAT	S-VHS-C	VHS-C	←	←	←	←	←	←
S CABLE	Used	Not Used	←	←	←	←	←	←
S OUTPUT	Used	Not Used	←	←	←	←	←	←
DC LIGHT	Used	Not Used	←	←	←	Used	←	←
BODY COLOR	SILVER	←	←	←	←	MOLD BLACK	←	←

The following table indicate different parts number between models GR-SXM49EX,GR-FXM39EK,GR-FXM39EX,GR-FXM39EY, GR-FXM39EZ,GR-FXM393EX,GR-FXM393EY and GR-FXM393EZ.

PACKING AND ACCESSORY ASSEMBLY <M1>

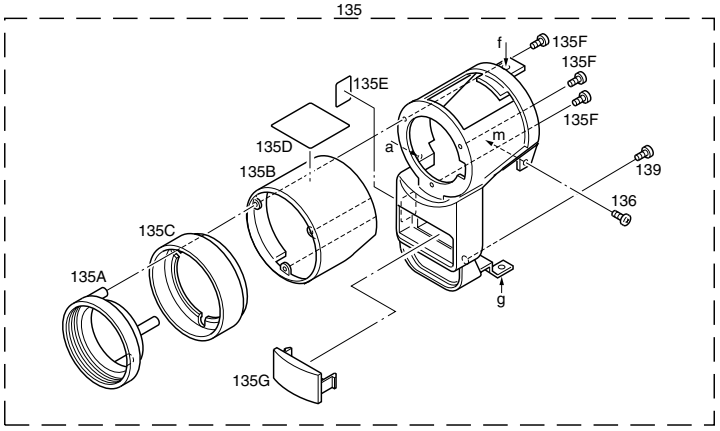
⚠ REF. NO.	ITEM \ MODEL	GR-SXM49EX	GR-FXM39EK	GR-FXM39EX	GR-FXM39EY	GR-FXM39EZ	GR-FXM393EX	GR-FXM393EY	GR-FXM393EZ
1	PACKING CASE	LY33071-001B	LY33071-003B	←	←	←	←	←	←
4	POLY BAG	QPA02003506	QPA02003506P	QPA02003506	←	←	←	←	←
⚠ 5	INST BOOK (ENGLISH)	—	LYT1061-001B	—	—	—	—	—	—
⚠ 5	INST BOOK (GERMAN)	LYT1060-002C	—	LYT1060-002C	←	—	LYT1060-002C	←	—
⚠ 5	INST BOOK (FRENCH)	LYT1060-003C	—	LYT1060-003C	—	—	LYT1060-003C	—	—
⚠ 5	INST BOOK (DUTCH)	LYT1060-004C	—	LYT1060-004C	—	—	LYT1060-004C	—	—
⚠ 5	INST BOOK (SPANISH)	LYT1060-005C	—	LYT1060-005C	—	—	LYT1060-005C	—	—
⚠ 5	INST BOOK (ITALIAN)	LYT1060-006C	—	LYT1060-006C	—	—	LYT1060-006C	—	—
⚠ 5	INST BOOK (DANISH)	—	—	—	LYT1060-007B	—	—	LYT1060-007B	—
⚠ 5	INST BOOK (FINNISH)	—	—	—	LYT1060-008B	—	—	LYT1060-008B	—
⚠ 5	INST BOOK (SWEDISH)	—	—	—	LYT1060-009B	—	—	LYT1060-009B	—
⚠ 5	INST BOOK (NORWEGIAN)	—	—	—	LYT1060-010B	—	—	LYT1060-010B	—
⚠ 5	INST BOOK (RUSSIAN)	—	—	—	—	LYT1060-011B	—	—	LYT1060-011B
⚠ 5	INST BOOK (CZECH)	—	—	—	—	LYT1060-012B	—	—	LYT1060-012B
⚠ 5	INST BOOK (POLISH)	—	—	—	—	LYT1060-013B	—	—	LYT1060-013B
⚠ 5	INST BOOK (HUNGARIAN)	—	—	—	—	LYT1060-014B	—	—	LYT1060-014B
6	Q.CARD(JUK)	—	LYT0194-001B	—	—	—	—	—	—
7	GUARANTY CARD	—	BT-54008-4	—	—	—	—	—	—
8	WARRANTY CARD	BT-54013-5	—	BT-54013-5	←	←	←	←	←
9	POLY BAG	QPA02003506	QPA02003506P	QPA02003506	←	←	←	←	←
⚠ 14	AC ADAPTER	LY20955-001C	←	LY20956-001B	←	←	←	←	←
⚠ 14	AC ADAPTER	LY20956-001B	←	—	—	—	—	—	—
16	S CABLE	QAM0004-003	—	—	—	—	—	—	—
17	POWER CORD	QMPL120-190-JR	QMPP110-190-JR	QMPL120-190-JR	←	←	←	←	←

Notes : Mark ← is same as left.
Mark — is not used.

FINAL ASSEMBLY <M2>

⚠ REF. NO.	ITEM / MODEL	GR-SXM49EX	GR-FXM39EK	GR-FXM39EX	GR-FXM39EY	GR-FXM39EZ	GR-FXM393EX	GR-FXM393EY	GR-FXM393EZ
101	C. COVER(M)ASSY	LY20927-002C	LY20927-001C	LY20927-002C	←	←	LY20927-003C	←	←
101F	STICKER(C)	LY44007-001A	—	LY44007-001A	←	←	←	←	←
103	COV.(UPPER/M)ASSY	LY33068-001C	←	←	←	←	LY33068-002B	←	←
121	LOWER CASE ASSY	LY20925-001D	LY20925-005E	←	←	←	←	←	←
⚠ 135	F.COVER ASSY	LY20926-001C	LY20926-003D	←	←	←	LY20926-012B	←	←
135B	RING	LY32949-001A	←	←	←	←	LY32949-007A	←	←
135D	STICKER(A)	LY43983-001A	LY43983-002A	←	←	←	←	←	←
⚠ 135E	CAUTION LABEL	LY44141-001A	—	—	—	—	LY44141-001A	←	←
135G	COVER(LIGHT)	—	LY32965-001A	←	←	←	—	—	—
137	DC LIGHT	LY33067-001A	—	—	—	—	LY33067-001A	←	←
138	MIC	LY32981-001A	←	←	←	←	LY32981-002A	←	←
157	TOP OPE UNIT	LY10392-001C	LY10392-002D	←	←	←	LY10392-003D	←	←

As for the difference in a “FINAL ASSEMBLY <M2>” drawing, 135G is added.



MECHANISM ASSEMBLY <M3>

⚠ REF. NO.	ITEM / MODEL	GR-SXM49EX	GR-FXM39EK	GR-FXM39EX	GR-FXM39EY	GR-FXM39EZ	GR-FXM393EX	GR-FXM393EY	GR-FXM393EZ
400	MECHA(B) ASSY	YMA0040A-E	YMA0042A-E	←	←	←	←	←	←
406	CASSETTE GUIDE ASSY(RIGHT)	YQ44339A-7	—	—	—	—	—	—	—
406A	SW.LEVER(RIGHT)	YQ32162-1-3	—	—	—	—	—	—	—
406B	TORSION SPRING	YQ44340-1-4	—	—	—	—	—	—	—
407	SCREW	LY42819-001A	—	—	—	—	—	—	—
466	ROTARY ENCODER	QSW0888-002	QSW0888-001	←	←	←	←	←	←

MONITOR ASSEMBLY <M5>

⚠ REF. NO.	ITEM / MODEL	GR-SXM49EX	GR-FXM39EK	GR-FXM39EX	GR-FXM39EY	GR-FXM39EZ	GR-FXM393EX	GR-FXM393EY	GR-FXM393EZ
⚠ 500	MONITOR ASSY	LY20947-001A	LY20947-005A	←	←	←	LY20947-002A	←	←
⚠ 501	M.COVER ASSY	LY33066-001A	LY33066-005A	←	←	←	LY33066-002A	←	←
501A	STICKER(B)	LY43982-001A	LY43982-005A	←	←	←	LY43982-004A	←	←
503	MON.HINGE ASSY	LY33005-001B	LY33005-001C	←	←	←	LY33005-002C	←	←

MAIN BOARD ASSEMBLY <01>

⚠ REF. NO.	ITEM / MODEL	GR-SXM49EX	GR-FXM39EK	GR-FXM39EX	GR-FXM39EY	GR-FXM39EZ	GR-FXM393EX	GR-FXM393EY	GR-FXM393EZ
PW1	MAIN BOARD ASSY	YB10400EA1-02	YB10400EH1-03	←	←	←	YB10400EC1-03	←	←
IC4002	IC(DIGITAL)	MSM548331TA	—	—	—	—	—	—	—
IC4701	IC	—	MM1512XN-X	←	←	←	←	←	←
IC4702	IC	BA7665FS-X	—	—	—	—	—	—	—
Q3505	DIGI TRANSISTOR	DTC144EE-X	—	—	—	—	—	—	—
Q4001	DIGI TRANSISTOR	DTC144EE-X	—	—	—	—	—	—	—
Q6306	MOS FET	2SK3577-X	—	—	—	—	2SK3577-X	←	←
D4001	SI DIODE	DAN222-X	—	—	—	—	—	—	—
C4024	C CAPACITOR	NCF31EZ-104X	—	—	—	—	—	—	—
C4025	C CAPACITOR	NCB31CK-104X	—	—	—	—	—	—	—
C4044	C CAPACITOR	NCB30JK-105X	—	—	—	—	—	—	—
C4713	E CAPACITOR	NEA70JM-226X	—	—	—	—	—	—	—
C4714	E CAPACITOR	NEA70GM-107X	—	—	—	—	—	—	—
C4715	C CAPACITOR	NCB31EK-103X	—	—	—	—	—	—	—
C6307	E CAPACITOR	NEA71CM-106X	—	—	—	—	NEA71CM-106X	←	←
R4013	MG RESISTOR	NRSA63J-102X	—	—	—	—	—	—	—
R4014	MG RESISTOR	NRSA63J-103X	—	—	—	—	—	—	—
R4036	MG RESISTOR	NRSA63J-101X	—	—	—	—	—	—	—
R4712	MG RESISTOR	NRSA63D-680X	—	—	—	—	—	—	—
R4713	MG RESISTOR	NRSA63D-680X	—	—	—	—	—	—	—
R6306	MG RESISTOR	NRSA63J-0R0X	—	—	—	—	NRSA63J-0R0X	←	←
R6307	MG RESISTOR	NRSA63J-104X	—	—	—	—	NRSA63J-104X	←	←
R6314	MG RESISTOR	NRS12BK-R47W	—	—	—	—	NRS12BK-R47W	←	←
CN6	CONNECTOR	QGA1201C2-02X	—	—	—	—	QGA1201C2-02X	←	←
J505	S JACK	QND0068-001	—	—	—	—	—	—	—

Notes : Mark ← is same as left.
Mark — is not used.

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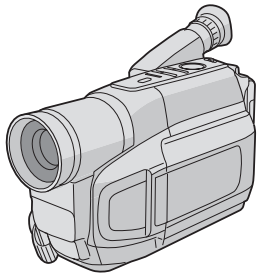
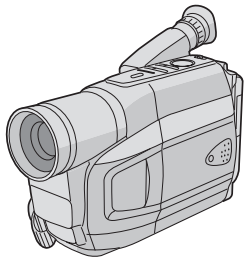
SERVICE MANUAL

COMPACT VHS CAMCORDER

GR-SX25EK,GR-SX25Ex,GR-SX25Ez
GR-SXM49EK,GR-SXM49Ex,GR-SXM49Ez





S-VHS C VHS PAL 625
Super VHS
Super VHS ET

For disassembling and assembling of MECHANISM ASSEMBLY, refer to the SERVICE MANUAL No.86700 (MECHANISM ASSEMBLY).

SPECIFICATION

Camcorder

General

Format	: S-VHS (GR-SXM49/SX25 only)/ VHS PAL standard
Power source	: DC 11 V ⎓ (Using AC Adapter) DC 6 V ⎓ (Using battery pack)
Power consumption	
Viewfinder on	: 4.2 W (GR-SXM49/FXM393/FXM39 only) 4.0 W (GR-SX25/FX15 only)
LCD monitor* on	: 4.7 W (GR-SXM49/FXM393/FXM39 only)
Video light**	: 3.0 W
* Applicable models only.	
** GR-SXM49/FXM393/SX25 only.	
Signal system	: PAL-type
Video recording system	
Luminance	: FM recording
Colour	: Converted sub-carrier direct recording Conforms to VHS standard
Cassette	: S-VHS C / VHS C cassette
Tape speed	
SP	: 23.39 mm/sec.
LP	: 11.70 mm/sec.
Recording time (max.)	
SP	: 60 minutes
LP	: 120 minutes (with EC-60 cassette)
Operating temperature	: 0ºC to 40ºC
Operating humidity	: 35% to 80%
Storage temperature	: -20ºC to 50ºC
Weight	: Approx. 840 g (GR-SXM49/FXM393/FXM39 only) Approx. 760 g (GR-SX25 only) Approx. 750 g (GR-FX15 only)
Dimensions (W x H x D)	: 113 mm x 117 mm x 199 mm (GR-SXM49/FXM393/FXM39 only) 108 mm x 117 mm x 199 mm (GR-SX25/FX15 only) (with the LCD monitor* closed and with the viewfinder fully tilted downward)
* Applicable models only.	

Pickup	: 1/6" format CCD
Lens	: F1.6, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens with auto iris and macro control, filter diameter 40.5 mm
Viewfinder	: Electronic viewfinder with 0.5" black/white CRT White balance
White balance adjustment	: Auto/Manual adjustment
Speaker (Applicable models only)	: Monaural
LCD monitor (Applicable models only)	: 2.5" diagonally measured, LCD panel/ TFT active matrix system

Connectors

Video	: 1 V (p-p), 75 Ω unbalanced, analogue output (via Video output connector)
Audio	: 300 mV (rms), 1 k Ω, analogue output (via Audio output connector)
S-Video (GR-SXM49/SX25 only)	: **Y**: 1 V (p-p), 75 Ω, analogue output **C**: 0.30 V (p-p), 75 Ω, analogue output

AC Adapter

Power requirement	: AC 110 V - 240 V ~, 50 Hz/60 Hz
Output	: DC 11 V ⎓, 1 A

Optional Accessories

- **Battery Packs BN-V12U, BN-V20U, BN-V400U**
- **Compact S-VHS (S-VHS C) Cassettes SE-C45/30**
- **Compact VHS (VHS C) Cassettes EC-60/45/30**
- **Active Carrying Bag CB-V7U**
- **Cassette Adapter C-P7U**

Some accessories are not available in some areas. Please consult your nearest JVC dealer for details on accessories and their availability.

GR-SX25EK, GR-SX25EX, GR-SX25EZ, GR-SXM49EK, GR-SXM49EX, GR-SXM49EZ M3C7B3,M3C723

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2003/01

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	GR-SX25EK	GR-SX25EX	GR-SX25EZ	GR-SXM49EK	GR-SXM49EX	GR-SXM49EZ
LCD MONITOR	NOT USED			USED		
SPEAKER	NOT USED			USED		

SECTION 1
PRECAUTIONS

1.1 SAFTY PRECAUTIONS

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold.However,in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

1.1.1 Precautions during Servicing

(1) Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product.When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

(2) Parts identified by the ⚠symbol and shaded ( ) parts are critical for safety.
Replace only with specified part numbers.
NOTE :
Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

(3) Fuse replacement caution notice.
Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.

(4) Use specified internal wiring. Note especially:
- Wires covered with PVC tubing
- Double insulated wires
- High voltage leads

(5) Use specified insulating materials for hazardous live parts. Note especially:
- Insulation Tape
- PVC tubing
- Spacers
- Insulation sheets for transistors
- Barrier

(6) When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

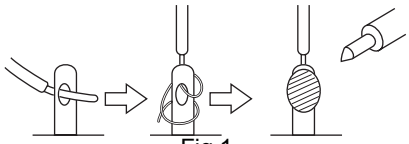


Fig.1

(7) Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

(8) Check that replaced wires do not contact sharp edged or pointed parts.

(9) When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

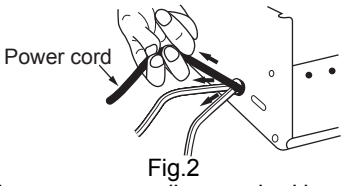


Fig.2

(10) Also check areas surrounding repaired locations.

(11) Products using cathode ray tubes (CRTs)In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits.Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

(12) Crimp type wire connector
In such cases as when replacing the power transformer in sets where the connections between the power cord and power trans former primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.
- **Connector part number** :E03830-001
- **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
- **Replacement procedure**
  a) Remove the old connector by cutting the wires at a point close to the connector.
  Important : Do not reuse a connector (discard it).

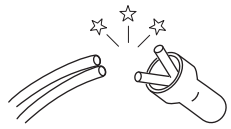


Fig.3

b) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

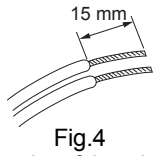


Fig.4

c) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

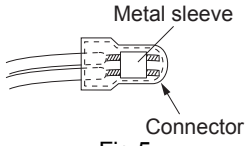


Fig.5

d) As shown in Fig.6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

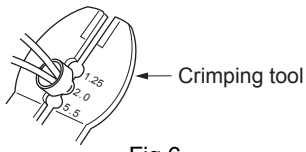


Fig.6

e) Check the four points noted in Fig.7.

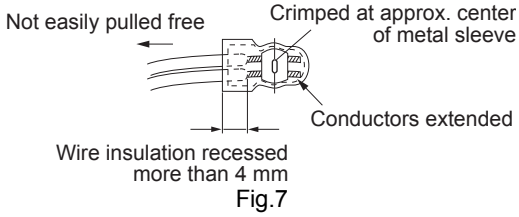


Fig.7

1.1.2 Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

(1) Insulation resistance test
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
See table 1 below.

(2) Dielectric strength test
Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See Fig.11 below.

(3) Clearance distance
When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See Fig.11 below.

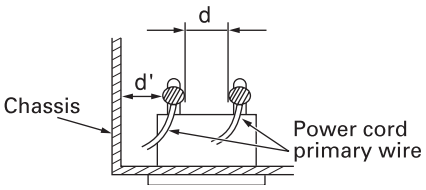


Fig.8

(4) Leakage current test
Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
Measuring Method : (Power ON)
Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig.9 and following Fig12.

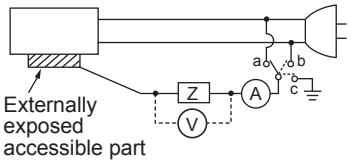
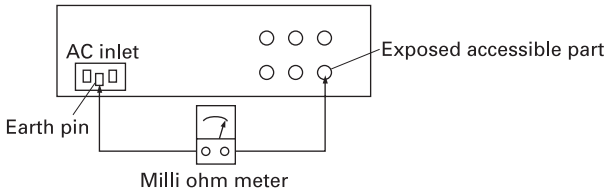


Fig.9

(5) Grounding (Class 1 model only)
Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).
Measuring Method:
Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See Fig.10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

Fig.10

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 miute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	1 MΩ ≦ R ≦ 12 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class Ⅱ) AC 1.5 kV 1 minute (Class Ⅰ)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Fig.11

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 μF, 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Fig.12

NOTE :

These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 BEFORE ASSEMBLY AND DISASSEMBLY

2.1.1 Precautions

1. Be sure to disconnect the power supply unit prior to mounting and soldering of parts.
2. Prior to removing a component part that needs to disconnect its connector(s) and its screw(s), first disconnect the wire(s) from the connector(s), and then remove the screw(s).
3. When connecting/disconnecting wires, pay enough attention not to damage the connectors.
4. Be careful in removing or handling the part to which some spacer or shield is attached for reinforcement or insulation.
5. When replacing chip parts (especially IC parts), first remove the solder completely to prevent peeling of the pattern.
6. Tighten screws properly during the procedures. Unless specified otherwise, tighten screws at a torque of 0.196N•m (2.0kgf•cm).

2.1.2 Assembly and disassembly

[Example]

STEP No.	PART	Fig. No.	POINT	NOTE
[1]	LOWER CASE ASSEMBLY	Fig.C1	8(S1),CN1a,b,c	-
[2]	B/W VF ASSEMBLY		3(S2)	-
[3]	TOP OPE UNIT		CN3,L3a,2(L3b)	-
[4]	CASE COVER(S) ASSEMBLY	Fig.C2	(S4),2(L4)	-
	CASE COVER(M) ASSEMBLY			

(1) (2) (3) (4) (5)

(1) Order of steps in Procedure
When reassembling, preform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.

(2) Part to be removed or installed.

(3) Fig. No. showing Procedure or Part Location.

C = CABINET
D = CAMERA AND BOARD ASSEMBLY

(4) Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

P = Spring
W = Washer
S = Screw
* = Unhook, unlock, release, unplug or unsolder.
2(S3) = 2 Screws (S3)
CN = Connector

(5) Adjustment information for installation.

2.1.3 Destination of connectors

Two kinds of double-arrows in connection tables respectively show kinds of connector/wires.

⇔ : Flat wire
↔ : Wire

[Example]

CONN. No.	CONNECTOR					Pin No.
CN1a	MAIN	CN27	↔	SPEAKER	-	2

Remove the parts marked in .

2.1.4 Disconnection of connectors (Wires)

Pull both ends of the connector in the arrow direction, remove the lock and disconnect the flat wire.

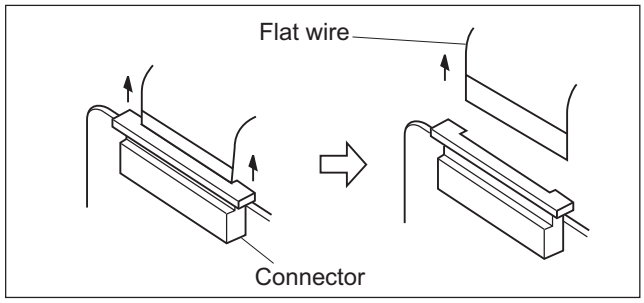


Fig.2-1-1

Extend the locks in the direction of the arrow for unlocking and then pull out the wire. After removing the wire, immediately restore the locks to their original positions because the locks are apt to come off the connector.

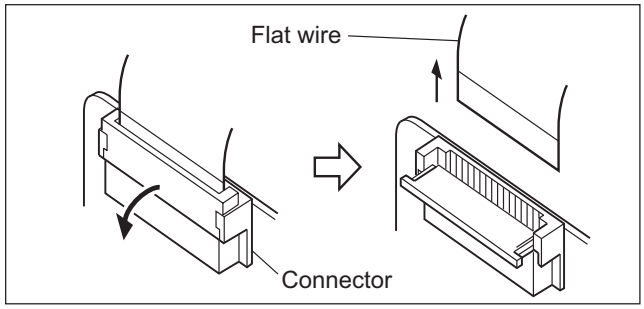


Fig.2-1-2

2.1.5 Tools required for disassembly and assembly

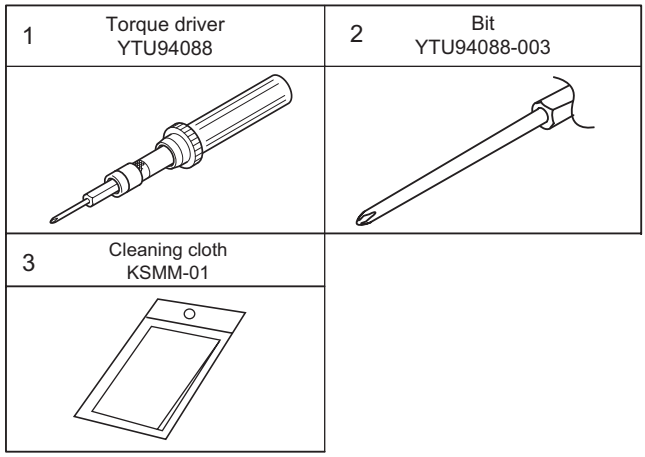


Fig.2-1-3

1.Torque driver
Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.

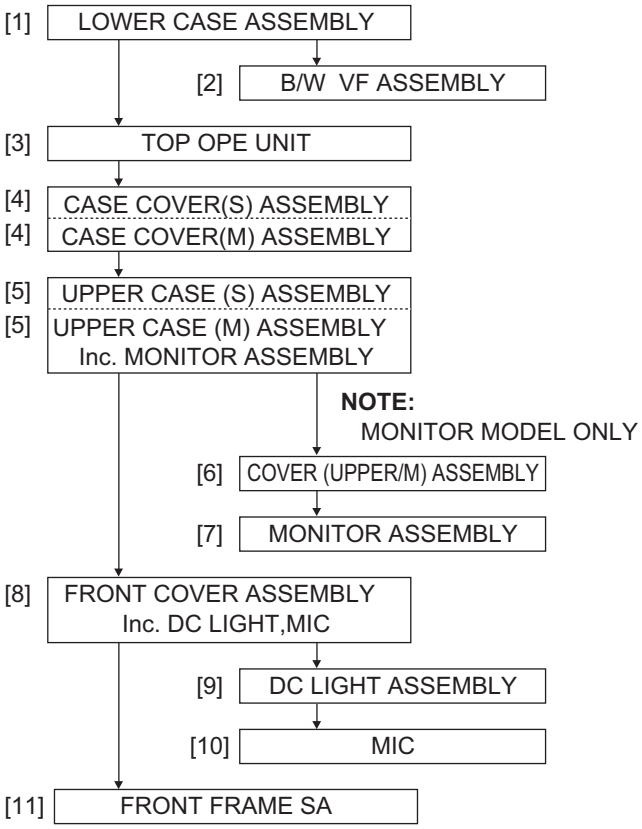
2.Bit
This bit is slightly longer than those set in conventional torque drivers.

3.Cleaning cloth
Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

2.2 ASSEMBLY AND DISASSEMBLY OF CABINET PARTS

2.2.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and board assembly in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order.



2.2.2 Disassembly method

STEP No.	PART	Fig. No.	POINT	NOTE
[1]	LOWER CASE ASSEMBLY	Fig.C1	8(S1),CN1a,b,c	-
[2]	B/W VF ASSEMBLY		3(S2)	-
[3]	TOP OPE UNIT		CN3,L3a,2(L3b)	-
[4]	CASE COVER(S) ASSEMBLY	Fig.C2	(S4),2(L4)	-
	CASE COVER(M) ASSEMBLY			
[5]	UPPER CASE (S) ASSEMBLY	Fig.C3	6(S5a),(S5b)	NOTE 5
	UPPER CASE (M) ASSEMBLY Inc. MONITOR ASSEMBLY		CN5,6(S5a),(S5b)	
[6]	COVER (UPPER/M) ASSEMBLY	Fig.C4	3(S6),2(L6)	-
[7]	MONITOR ASSEMBLY		S7a,L7,SHEET(FPC),2(S7b)	NOTE 7a,b,c,d
[8]	FRONT COVER ASSEMBLY Inc. DC LIGHT,MIC	Fig.C5	CN8a,CN8b,(S8),L8a,L8b	NOTE 8a,b
[9]	DC LIGHT ASSEMBLY		2(L9)	-
[10]	MIC		S10	-
[11]	FRONT FRAME SA		2(S11)	NOTE 11

CONN. No.	CONNECTOR					Pin No.
CN1a	MAIN	CN27	↔	SPEAKER	-	2
CN1b	MAIN	CN13	⇔	ZOOM UNIT	-	14
CN1c	MAIN	CN12	↔	B/W VF ASSEMBLY		3
CN3	MAIN	CN18	⇔	TOP OPE UNIT	-	13
CN5	MAIN	CN16	⇔	MONITOR ASSEMBLY	-	25
CN8a	MAIN	CN6	↔	DC LIGHT	-	2
CN8b	MAIN	CN8	↔	MIC	-	2

Remove the parts marked in .

NOTE 5 :
Take care not to break or damage the FRAME.

NOTE 7a :
Take care not to cut the FPC wire.

NOTE 7b :
Insert and attach the SHEET(FPC) between the MONITOR FPC and the UPPER CASE(M)ASSEMBLY.

NOTE 7c :
Attachment of the FPC

NOTE 7d :
For disassembly of the MONITOR ASSEMBLY, refer to 2.4 ASSEMBLY AND DISASSEMBLY OF [7]MONITOR ASSEMBLY (CABINET PARTS).

NOTE 8a :
Take care not to damage the OP BLOCK ASSEMBLY when and after the FRONT CASE ASSEMBLY is removed.

NOTE 8b :
Attachment of the WIRE

NOTE 11 :
There are two types of FRONT FRAME ASSEMBLY.
The two types of the FRONT FRAME ASSEMBLY can be distinguished from each other by their shape.
TYPE B consists of the two parts, namely the tape guide and the torsion spring.
In exchanging the FRONT FRAME ASSEMBLY, TYPE A can be exchanged to TYPE B, but TYPE B cannot be exchanged to TYPE A.
As for the part number, refer to the parts list.

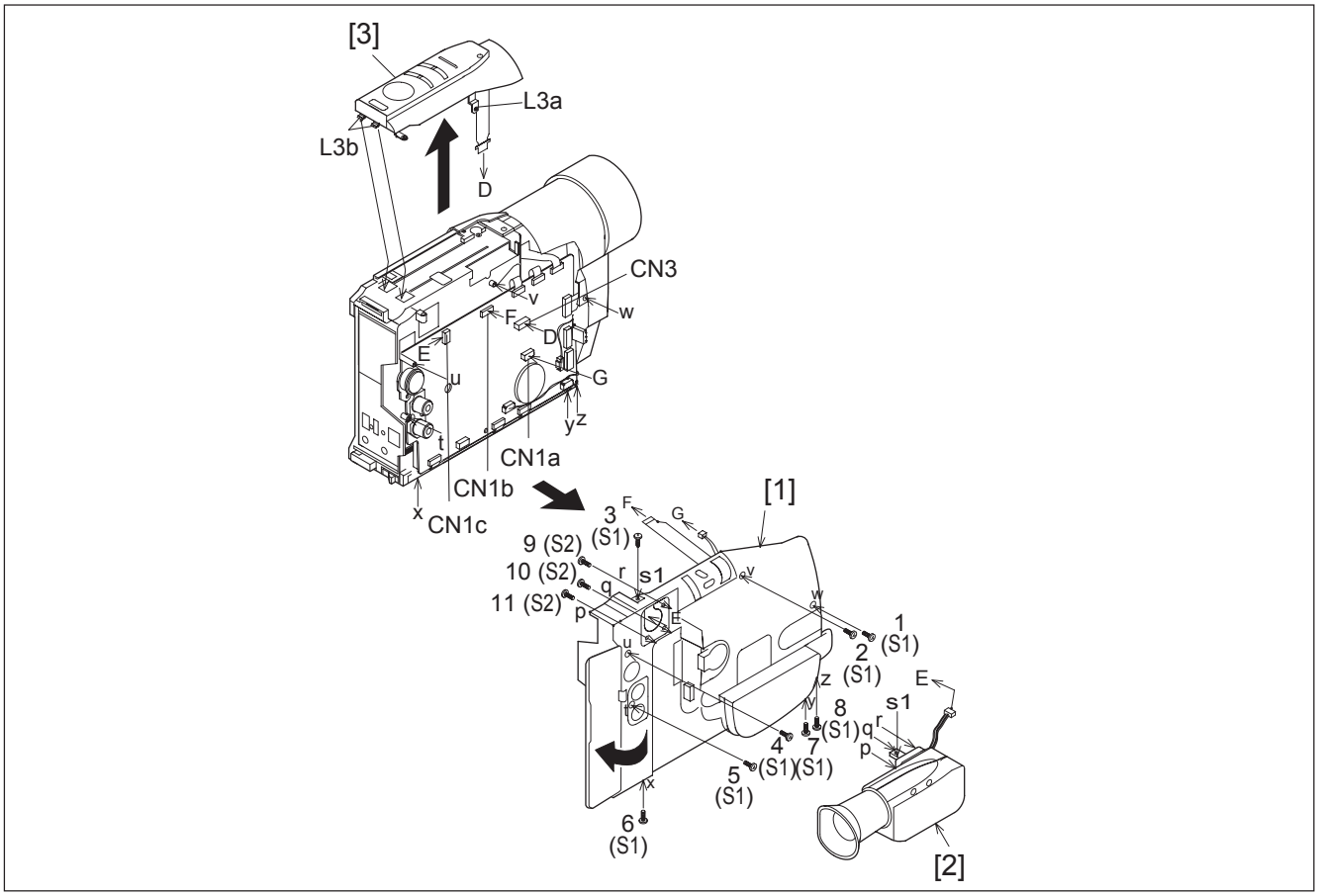

[3]
L3a
L3b
D
CN3
v
w
F
D
E
u
G
y
z
CN1a
CN1b
x
CN1c
[1]
3 (S1)
F
G
9 (S2)
10 (S2)
11 (S2)
r
s1
q
p
v
w
E
1 (S1)
2 (S1)
u
z
E
8 (S1)
s1
r
q
p
4 (S1)
7 (S1)
5 (S1)
x
6 (S1)
[2]

Fig.C1

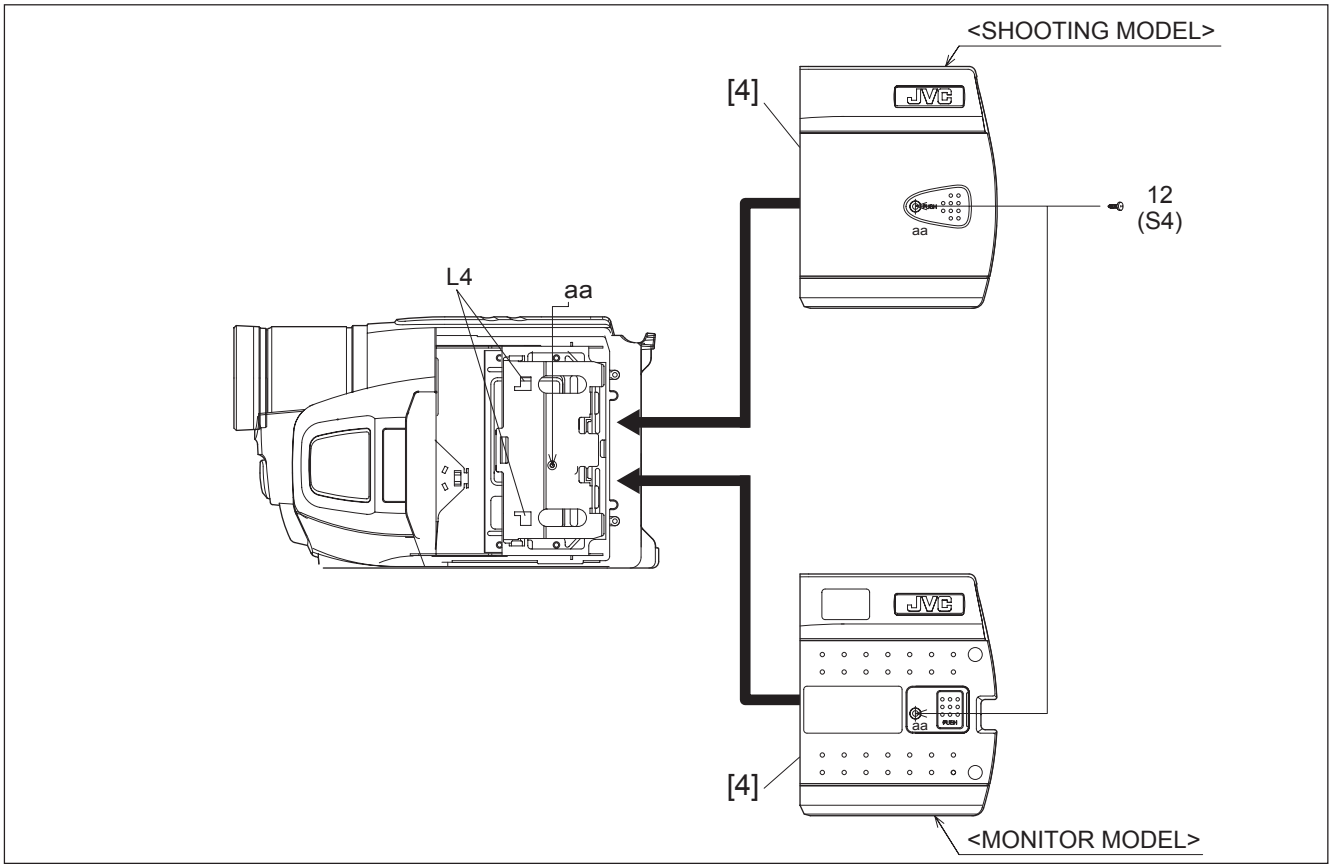

<SHOOTING MODEL>
[4]
JVC
12 (S4)
aa
L4
aa
JVC
aa
[4]
<MONITOR MODEL>

Fig.C2

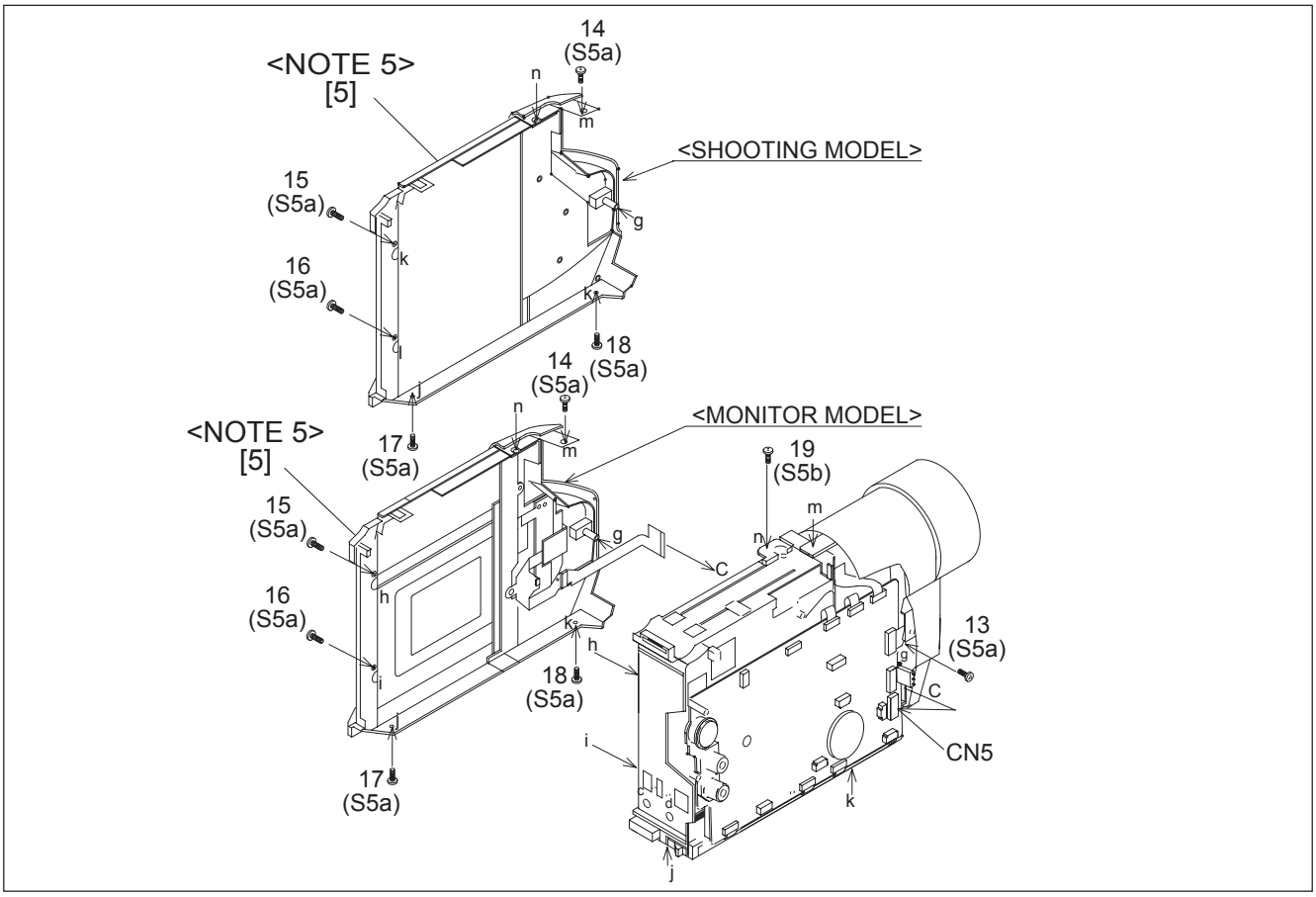

<NOTE 5>
[5]
14
(S5a)
<SHOOTING MODEL>
15
(S5a)
16
(S5a)
18
(S5a)
<MONITOR MODEL>
17
(S5a)
19
(S5b)
13
(S5a)
CN5

Fig.C3

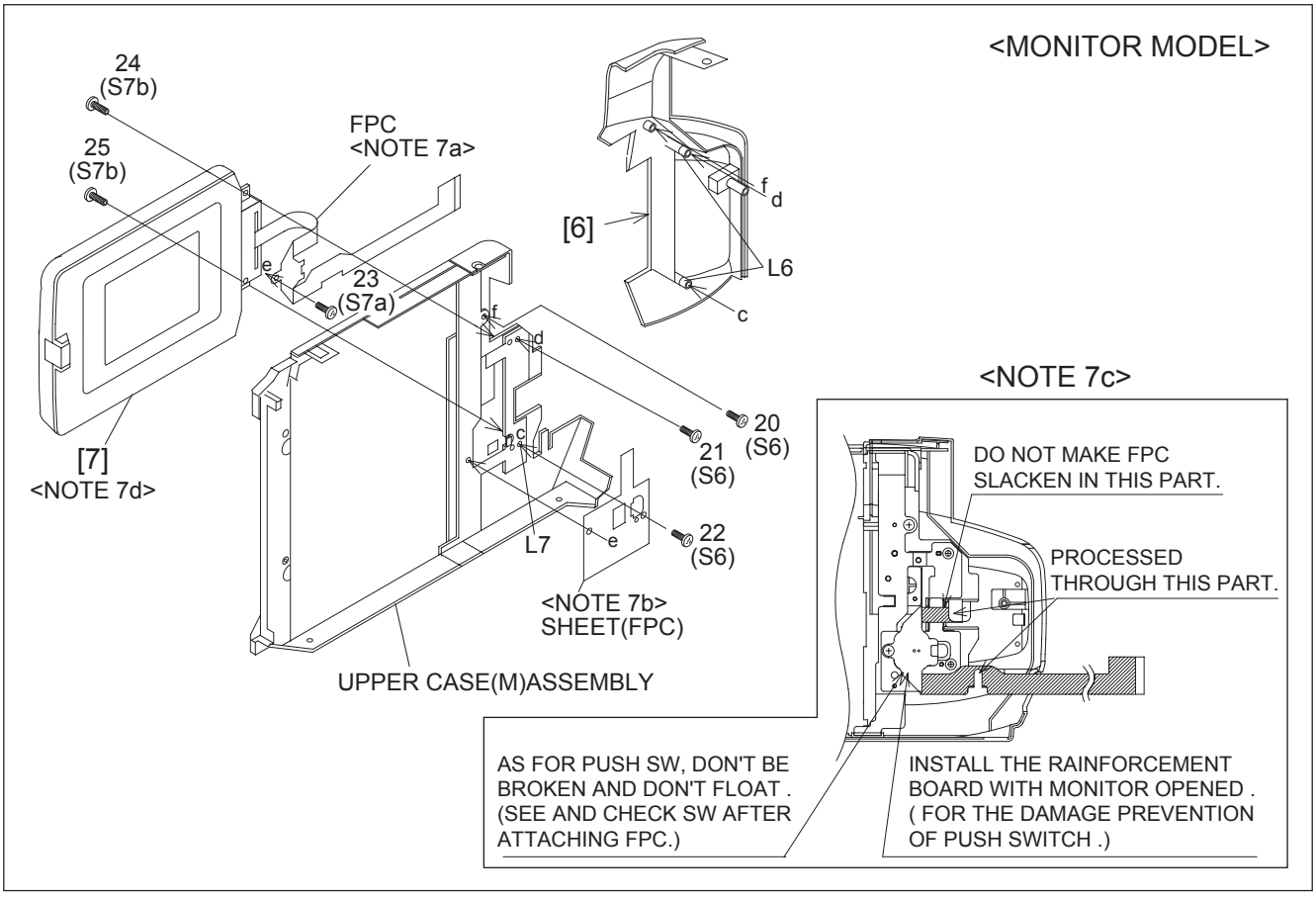

<MONITOR MODEL>
24
(S7b)
25
(S7b)
FPC
<NOTE 7a>
[6]
L6
23
(S7a)
20
(S6)
21
(S6)
22
(S6)
[7]
<NOTE 7d>
L7
<NOTE 7b>
SHEET(FPC)
UPPER CASE(M)ASSEMBLY
<NOTE 7c>
DO NOT MAKE FPC
SLACKEN IN THIS PART.
PROCESSED
THROUGH THIS PART.
AS FOR PUSH SW, DON'T BE
BROKEN AND DON'T FLOAT .
(SEE AND CHECK SW AFTER
ATTACHING FPC.)
INSTALL THE RAINFORCEMENT
BOARD WITH MONITOR OPENED .
(FOR THE DAMAGE PREVENTION
OF PUSH SWITCH .)

Fig.C4

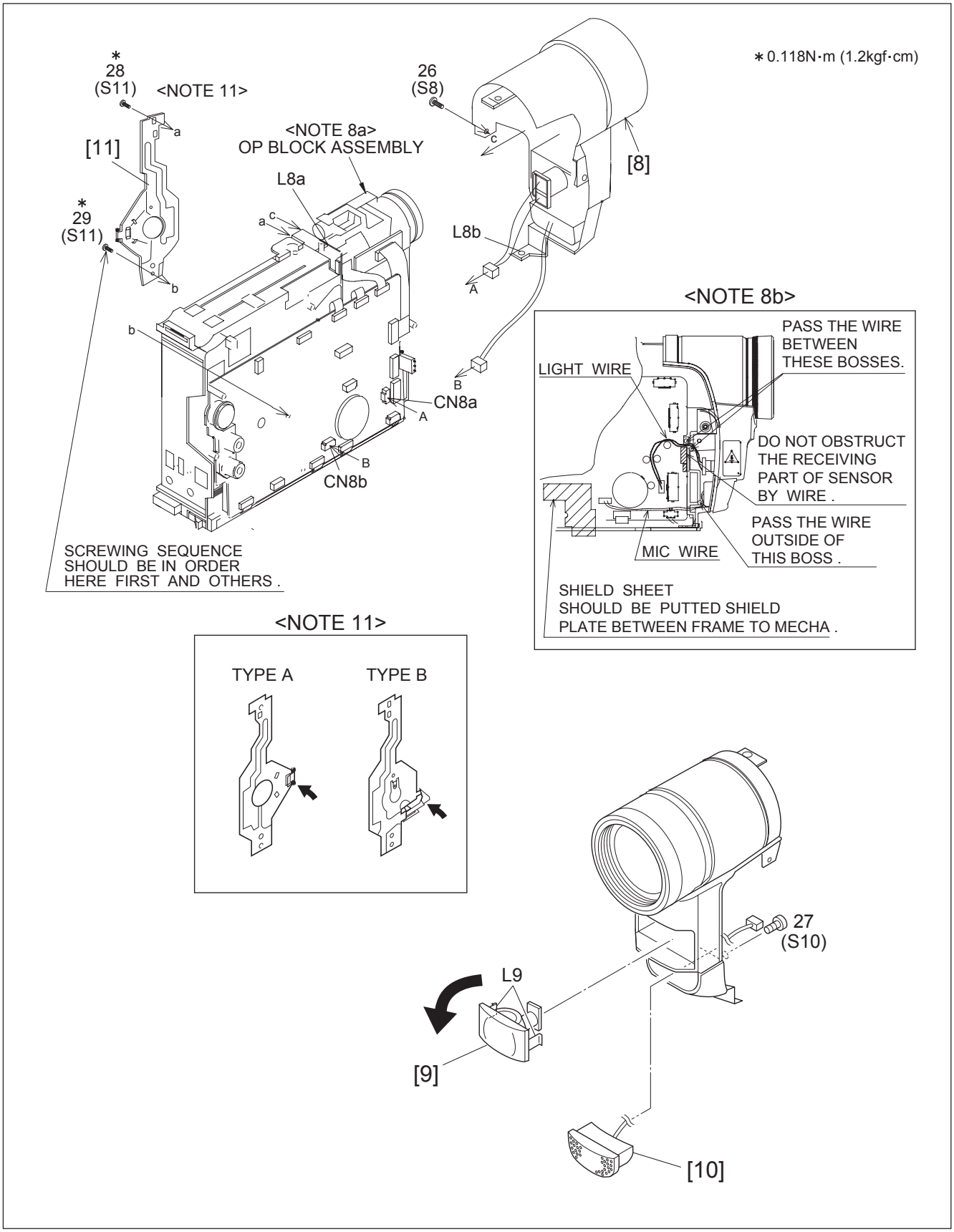

∗ 0.118N·m (1.2kgf·cm)
∗ 28 (S11)
<NOTE 11>
26 (S8)
[11]
<NOTE 8a>
OP BLOCK ASSEMBLY
L8a
[8]
∗ 29 (S11)
L8b
CN8a
CN8b
SCREWING SEQUENCE SHOULD BE IN ORDER HERE FIRST AND OTHERS .
<NOTE 8b>
PASS THE WIRE BETWEEN THESE BOSSES.
LIGHT WIRE
DO NOT OBSTRUCT THE RECEIVING PART OF SENSOR BY WIRE .
PASS THE WIRE OUTSIDE OF THIS BOSS .
MIC WIRE
SHIELD SHEET SHOULD BE PUTTED SHIELD PLATE BETWEEN FRAME TO MECHA .
<NOTE 11>
TYPE A
TYPE B
27 (S10)
L9
[9]
[10]

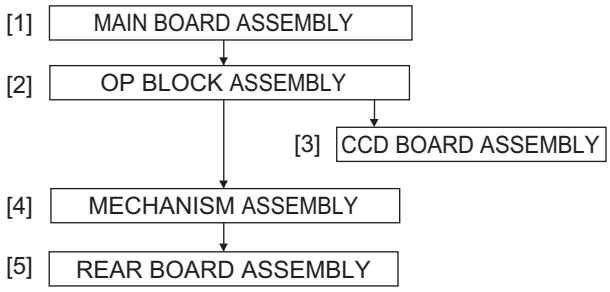
Fig.C5

2.3 ASSEMBLY AND DISASSEMBLY OF CAMERA SECTION AND BOARD ASSEMBLY

2.3.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and board assembly in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order.

NOTE:
Please see Service Manual No. 86700 (MECHANISM ASSY).



2.3.2 Disassembly method

STEP No.	PART	Fig. No.	POINT	NOTE
[1]	MAIN BOARD ASSEMBLY	Fig.D1	CN1a,b,c,d,e,f,g,h,SHIELD 2(S1),CN1j	-
[2]	OP BLOCK ASSEMBLY	Fig.D2	2(S2)	-
[3]	CCD BOARD ASSEMBLY			NOTE 3
[4]	MECHANISM ASSEMBLY	Fig.D3	(S4a),(S4b),L4 SHIELD CASE(MAIN) 2(S4c),(S4d)	NOTE 4
[5]	REAR BOARD ASSEMBLY	Fig.D4	2(S5)	-

CONN. No.	CONNECTOR					Pin No.
CN1a	MAIN	CN15	⇔	OP BLOCK ASSEMBLY	-	24
CN1b	MAIN	CN4	↔	LOADING MOTOR	-	2
CN1c	MAIN	CN1	⇔	DRUM MOTOR	-	10
CN1d	MAIN	CN5	⇔	HEAD(VIDEO,FLY.E)	-	11
CN1e	MAIN	CN2	⇔	SENSOR	-	14
CN1f	MAIN	CN3	⇔	CAPSTAN MOTOR	-	18
CN1g	MAIN	CN7	⇔	A/C HEAD	-	11
CN1h	MAIN	CN22	⇔	CCD	CN5301	14
CN1j	MAIN	CN28	⇔	REAR UNIT	-	10

Remove the parts marked in .

NOTE 3 :
For disassembly of the CCD BOARD ASSEMBLY, refer to 2.5 ASSEMBLY AND DISASSEMBLY OF [2]OP BLOCK ASSEMBLY CCD BOARD ASSEMBLY (CAMERA SECTION AND BOARD ASSEMBLY).

NOTE 4 :
When attaching the MECHANISM ASSEMBLY to S.CASE (MAIN), pull out the FPC CABLE not to be inserted between the MECHANISM ASSEMBLY and S.CASE (MAIN).

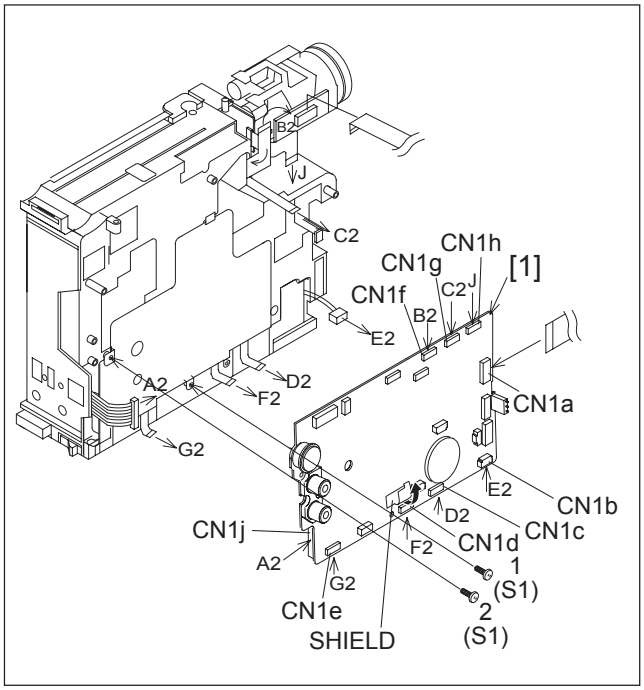


Fig.D1

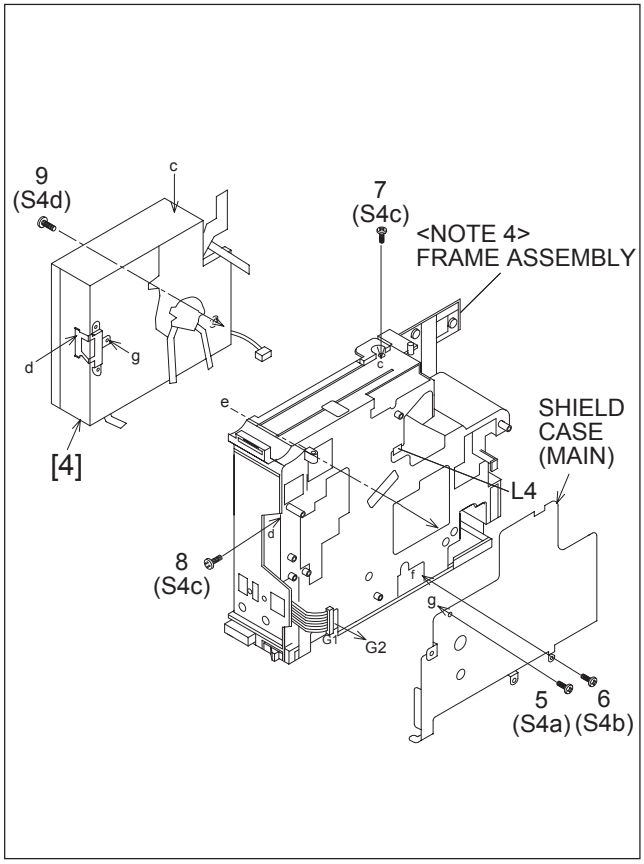


Fig.D3

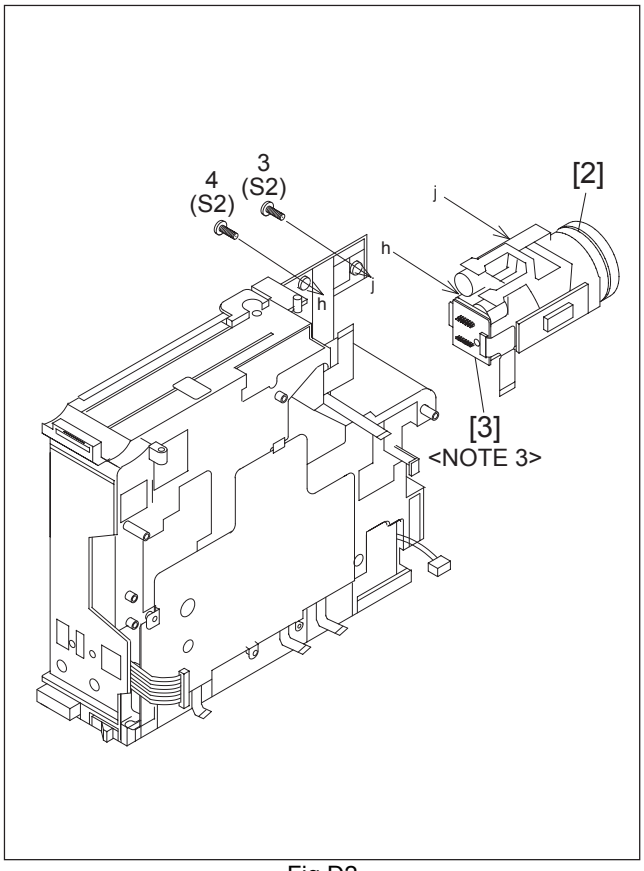


Fig.D2

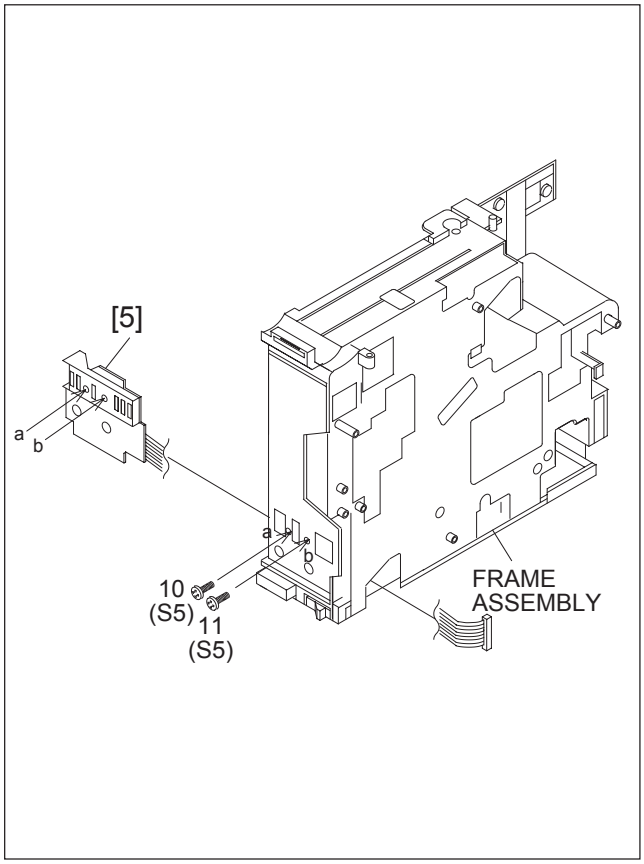


Fig.D4

2.4 ASSEMBLY AND DISASSEMBLY OF [7]MONITOR ASSEMBLY (CABINET PARTS)

2.4.1 Disassembly of MONITOR ASSEMBLY

NOTE :

Be careful not to soil or scratch the monitor screen through the disassembly/assembly work.

(1) While removing the three screws 1 to 3 in numerical order and disengaging the two hooks (L7a and L7b) in alphabetical order, remove the MONITOR COVER ASSEMBLY.

NOTE 7a :

After removing the MONITOR COVER ASSEMBLY, be careful not to damage the FPC and the connector because the MONI. HINGE ASSEMBLY moves very easily.

(2) Unlock the connector 7a and then remove the FPC while lifting the MONI. HINGE ASSEMBLY upwards to remove it together with the FPC.

NOTE 7b :

When removing the FPC, unlock the connector first and then lift the MONI. HINGE ASSEMBLY upwards. Accordingly, the FPC is removed together with the MONI.HINGE ASSEMBLY.

(3) Unsolder the two soldered parts (SD7).

NOTE 7c :

When removing the MONITOR BOARD ASSEMBLY and the BACKLIGHT together, it is not necessary to unsolder the two soldered parts (SD7).

NOTE 7d :

It depends on the inch size of the monitor assembly whether the backlight is supplied as an assembly or as separated parts.

In replacing the backlight assembly, see the Parts List.

(4) Unlock the connector 7b, and disconnect the FPC from the connector 7b.

(5) Disconnect the FPC from MONITOR CASE ASSEMBLY.

(6) Remove the screw (4), and remove the MONITOR BOARD ASSEMBLY while lifting the side of MONITOR BOARD ASSEMBLY which has been attached with screw (4) upwards.

(7) Remove the BACKLIGHT and DIFF SHEET in this order.

(8) Remove the LCD FRAME&LCD MODULE while disengaging L7e and L7f at the both sides of MONITOR CASE ASSEMBLY.

(9) Remove the S.CASE.

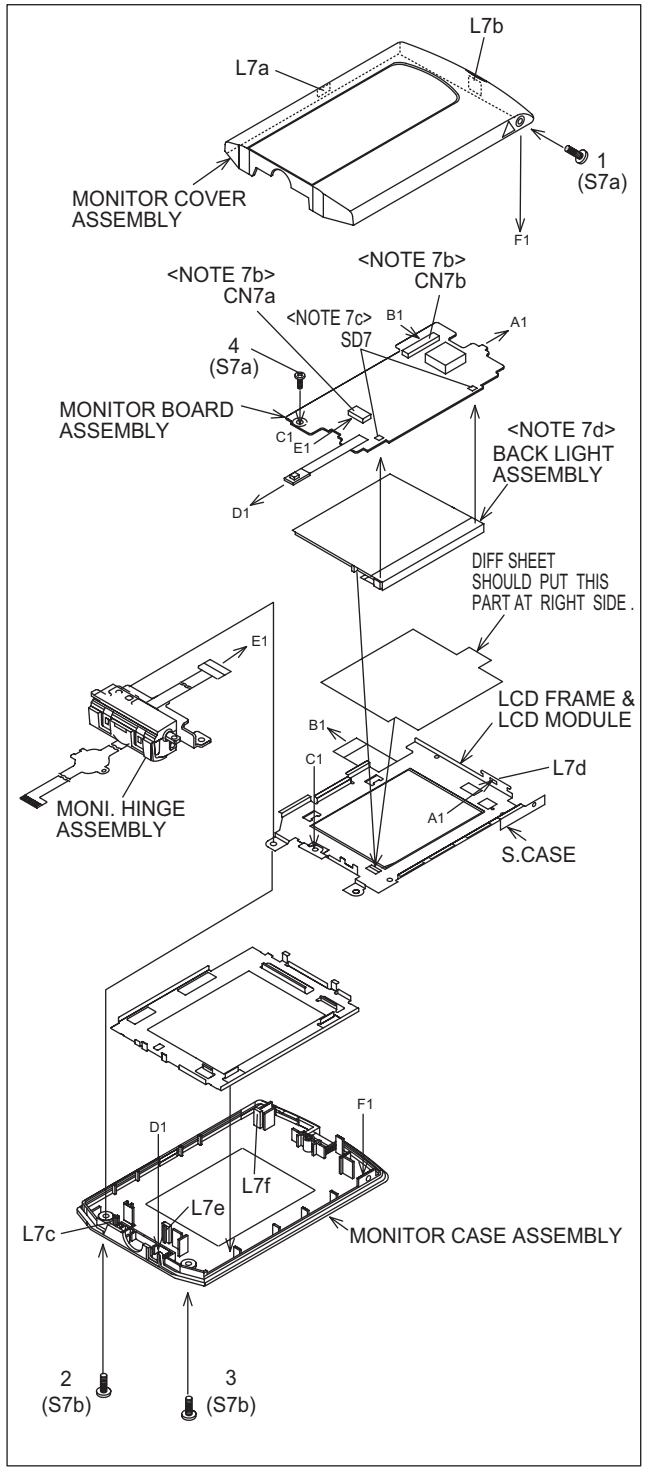


Fig.2-4-1

2.5 ASSEMBLY AND DISASSEMBLY OF [2]OP BLOCK ASSEMBLY CCD BOARD ASSEMBLY (CAMERA SECTION AND BOARD ASSEMBLY)

2.5.1 Precautions

(1) Take care in handling the CCD IMAGE SENSOR, OP LPF and lens components when performing maintenance etc., especially with regard to surface contamination, attached dust or scratching. If fingerprints are present on the surface they should be wiped away using either a silicon paper, clean chamois or the cleaning cloth.
(2) The CCD IMAGE SENSOR may have been shipped with a protective sheet attached to the transmitting glass. When replacing the CCD IMAGE SENSOR, do not peel off this sheet from the new part until immediately before it is mounted in the OP BLOCK ASSEMBLY.
(3) The orientation of the OP LPF is an important factor for installation. If there is some marking on the OP LPF, be sure to note it down before removing and to reassemble it very carefully as it was referring to the marking.

2.5.2 Disassembly of CCD BOARD ASSEMBLY and CCD BASE ASSEMBLY

(1) Unsolder the CCD BOARD ASSEMBLY by the 14 points (SD2) and then remove it.
(2) Remove the two screws (1, 2) and remove the CCD BASE ASSEMBLY.
(3) Remove the SPACER.
(4) Remove the SHEET.
(5) Remove the OP LPF.

2.5.3 Assembly of CCD BASE ASSEMBLY and CCD BOARD ASSEMBLY

(1) Set the OP LPF to the OP BLOCK ASSEMBLY so that the OP side touches the OP BLOCK ASSEMBLY.

NOTE 2a:
Pay careful attention to the orientation of the OP LPF.

(2) Set the SHEET to the OP LPF not to come off the right position.
(3) Attach the SPACER to the OP BLOCK ASSEMBLY.
(4) Fasten them together with the two screws (1, 2).
(5) Set the CCD BOARD ASSEMBLY in the CCD BASE ASSEMBLY, and then solder it by the 14 points (SD2).

2.5.4 Replacement of service repair parts

The service repair parts for the OP BLOCK ASSEMBLY are as listed below.
Before replacement of these parts, remove the BRACKET (OP BLOCK ASSEMBLY) as required.
Take special care not to disconnect any of the FPC wires or cause any damage due to soldering (excessive heating).

(1) FOCUS MOTOR
(2) ZOOM MOTOR
(3) IRIS MOTOR UNIT

NOTE 2b:
When replacing the FOCUS MOTOR or the ZOOM MOTOR, solder the FPC at a space of about 1 mm above the terminal pin.

NOTE 2c:
The IRIS MOTOR UNIT includes the FPC ASSEMBLY and two sensors.

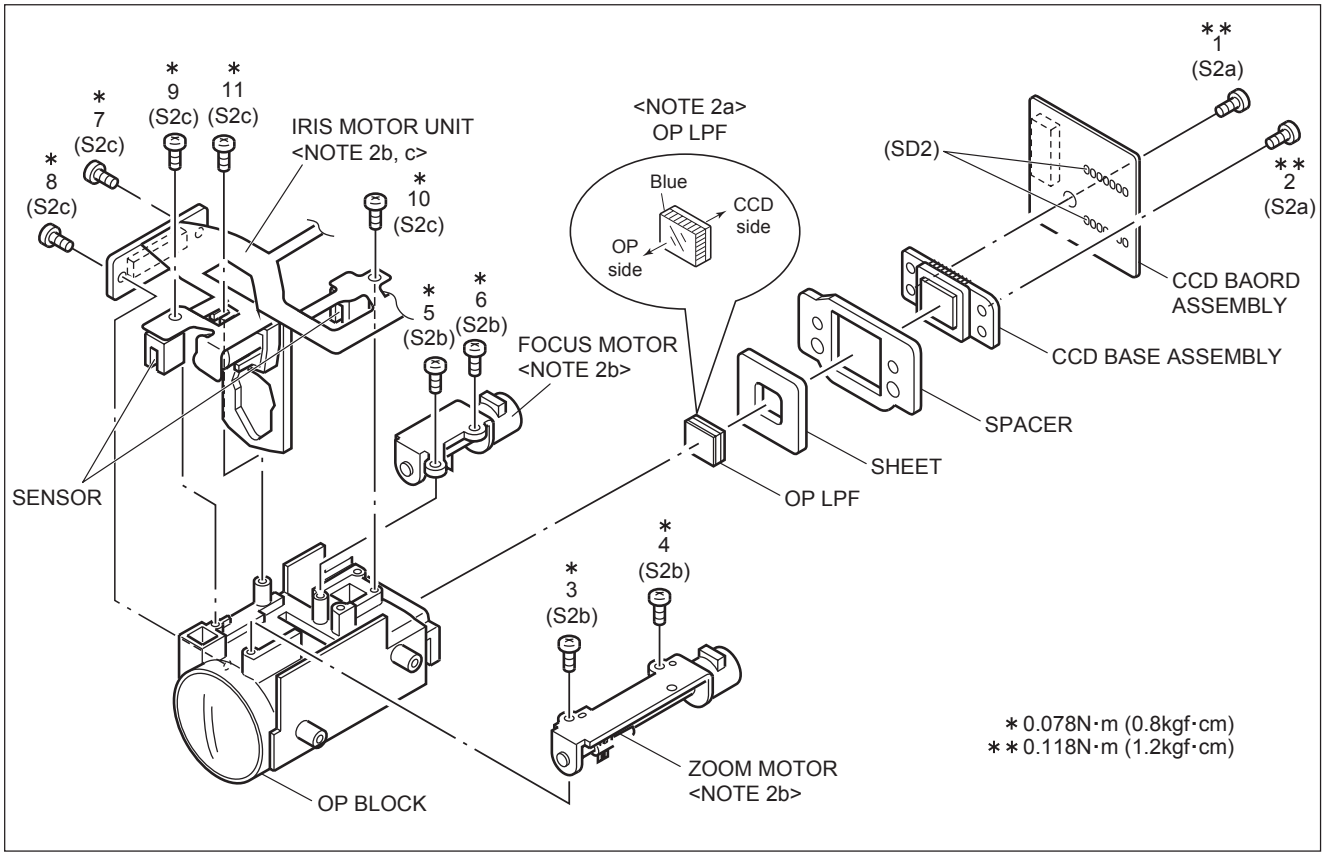


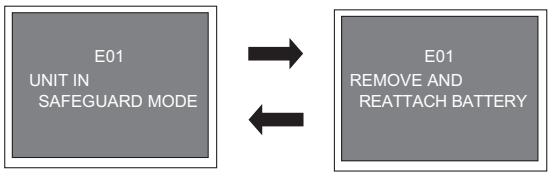
Fig.2-5-1

2.6 EMERGENCY DISPLAY

Whenever some abnormal signal is input to the mechacon CPU, an error number (E01, as an example) is displayed in the electronic view finder. In every error status, such the message as shown below alternately appear over and over.

- In an emergency mode, all operations except turning on/off the POWER switch are ineffectual.

Example (in case of the error number E01):



E. VF	Symptom	Mode when observed
E07	Short circuit of capstan MDA	Power ON
E06	CAPSTAN FG input absent	CAPSTAN rotation
E04	DRUM FG input absent	DRUM rotation
E03	SUPPLY REEL FG input absent	REC, PLAY, SEARCH, FF/REW
E02	Mode control motor rotates for more than 7.5 sec UNLOADING without shift to next mode.	UNLOADING
E01	Mode control motor rotates for more than 7.5 sec LOADING without shift to next mode.	LOADING
E00	Overtime the programming transaction	REC, PLAY

(PAL)

2.7 AUTOMATIC DEMONSTRATION

Automatic Demonstration takes place when “DEMO MODE” is set to “ON” (factory-preset).

(1) Available when the Power Switch is set to “A” or “M” while pressing down the Lock Button located on the switch.
(2) Performing any operation during the demonstration stops the demonstration temporarily. If no operation is performed for more than 1 minute after that, the demonstration will resume.
(3) “DEMO MODE” remains “ON” even if the camcorder power is turned off.
(4) To cancel Automatic Demonstration, set the Power Switch to “M” and press the MENU Wheel in while the demo is in progress. This takes you directly to the demo mode’s Setting Menu (so you will not have to go through the main Menu Screen). Rotate the MENU Wheel to select “OFF” and press it.

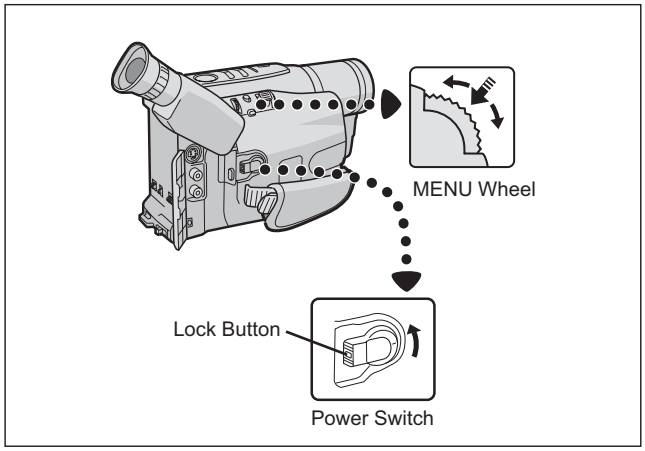


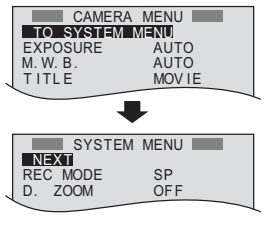
Fig.2-7-1

NOTE:

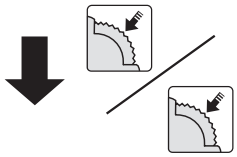
- When a tape whose Erase Protection tab is in the position that allows recording is loaded in the camcorder, demonstration is not available.
- If you do not detach the Lens Cap, you cannot see the actual changes of the Automatic Demonstration activated on the LCD monitor* or viewfinder.
  * Applicable models only.

2.7.1 Operation procedure

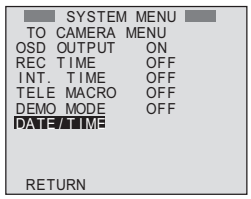
1. Set the Power Switch to turn on the "M".
   Press the MENU Wheel once.
   The first page of the DISPLAY appears on the LCD monitor (or in the viewfinder).
   Press the MENU Wheel once.
   The second page of the DISPLAY appears on the LCD monitor (or in the viewfinder).



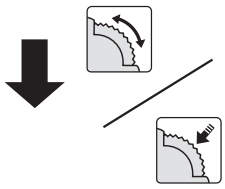
Display 1



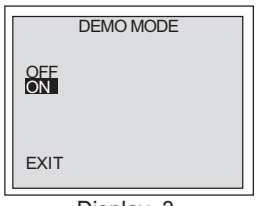
2. Press the MENU Wheel once.
   The third page of the DISPLAY appears on the LCD monitor (or in the viewfinder).



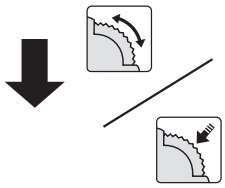
Display 2



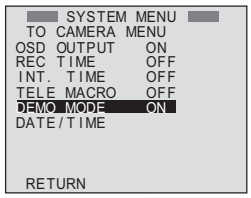
3. Turn the MENU Wheel in the direction ofthe arrow to set the cursor at "DEMO MODE".
   Then, press the MENU Wheel once.
   The third page the DEMO MODE appearson the LCD monitor (or in the viewfinder).



Display 3



4. Turn the MENU Wheel in the direction ofthe arrow to set the cursor at "ON".
   Then, press the MENU Wheel once.
   The fourth page of the DISPLAY appears on the LCD monitor (or in the viewfinder).
   ("DEMO MODE" is switched "ON" from "OFF" status.)



Display 4

5. Press the MENU Wheel once.
   The camcorder automatically enter the DEMONSTRATION mode and it repeats demonstration operation.
   While the camcorder is performing demonstration, all operations except turning on/off the Power Switch are ineffectual.

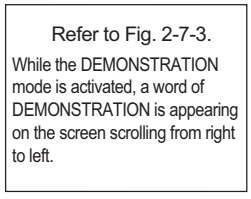


Fig.2-7-2

2.7.2 Flow chart

NOTE:

When demonstration is performed, some of the following functions that a model does not have are omitted.

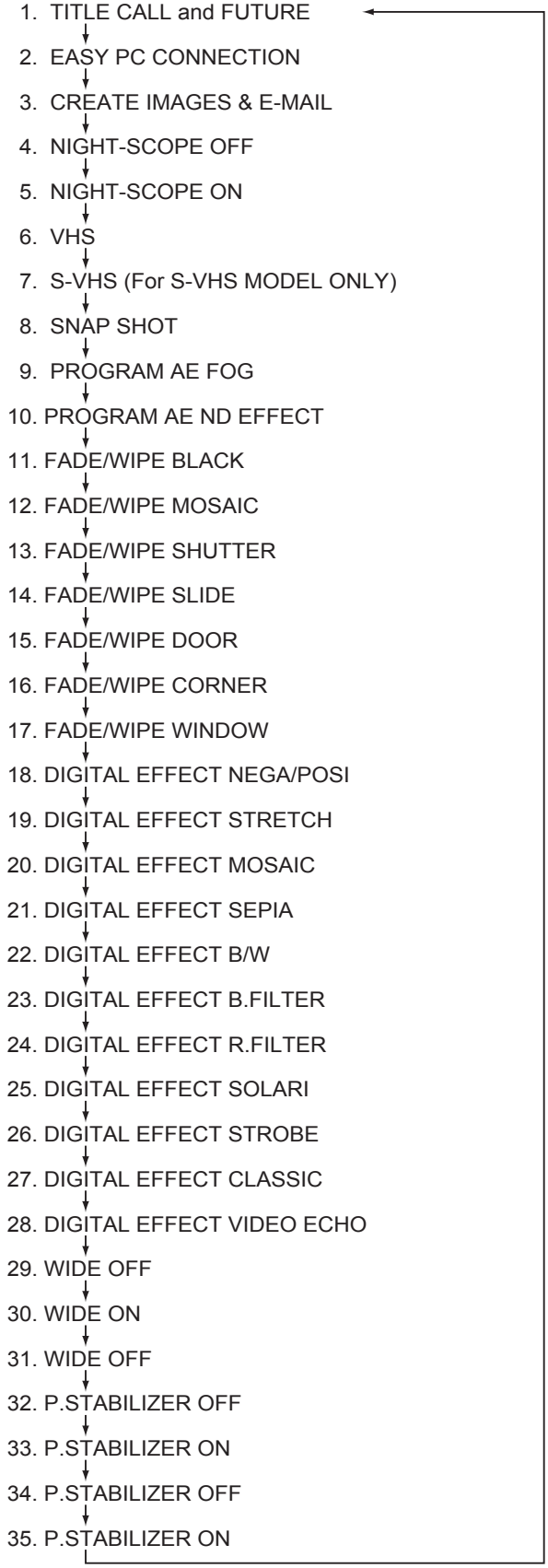


Fig.2-7-3

2.8 TAKE OUT CASSETTE TAPE

In the event that the set enters the emergency mode as it is loaded with a cassette tape and the cassette tape cannot be ejected with the EJECT button, manually, take it out of the set according to the following procedure.

NOTE :

- If the mechanism comes into the unloading mode as the cassette tape is not held by hand, it results in tape damage.
  (1) Disconnect the set from the power source.
  (2) Remove the LOWER CASE ASSEMBLY and TOP OPE UNIT (see Fig.C1, page 6).
  (3) Connect a jumper wire to each pole of the LOADING MOTOR as shown by the magnified view (Fig. 2-8-1).
  (4) While holding down the cassette housing by hand, connect the jumper wires to a battery to run the mechanism to the EJECT position four unloading. If this unloading operation is performed as the cassette housing is not held down by hand, the front lid of the cassette may damage the tape when it is ejected.
  (5) For taking in the slack of the tape, run the mechanism to the EJECT position as the front lid of the cassette is left open, and turn the TAKE-UP GEAR in the forward direction to wind up the tape. After confirming that the tape has completely been wound up and the supply reel is idling, take the cassette tape out of the cassette housing.

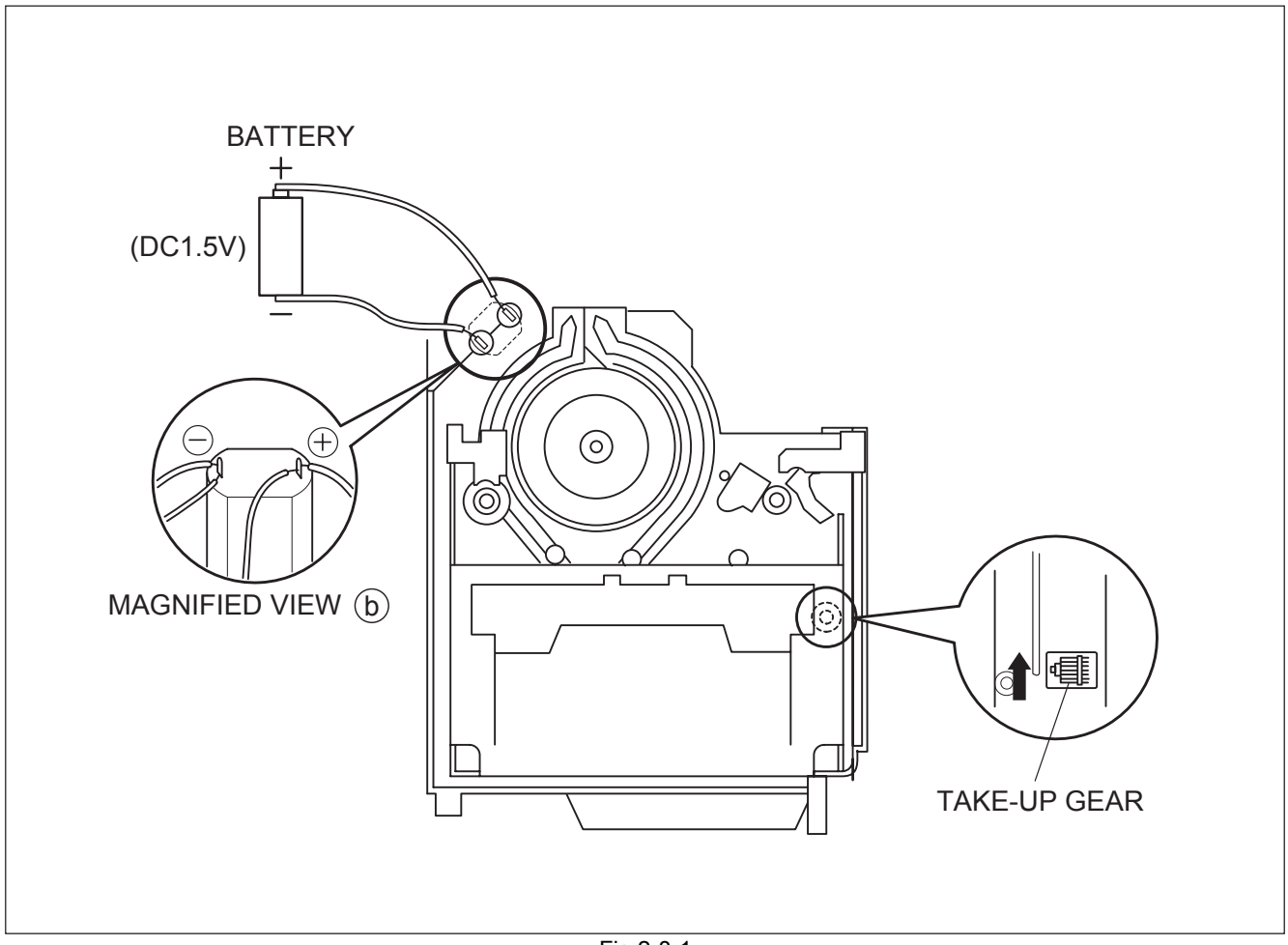


Fig.2-8-1

<2.2 CABINET PARTS>

Symbol No.	[1]								[2]			[3]	[4]	[5]							
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11	-	12	13	14	15	16	17	18	19
Place to stick screw												-								
Screw tightening torque	Ⅰ											-	Ⅰ	Ⅰ						
Reference drawing	Fig.C1												Fig.C2	Fig.C3						

Symbol No.	[6]			[7]			[8]	[9]	[10]	[11]	
Removing order of screw	20	21	22	23	24	25	26	-	27	28	29
Place to stick screw					*	*		-	-		
Screw tightening torque	Ⅰ						Ⅰ	-	Ⅰ	Ⅱ	
Reference drawing	Fig.C4						Fig.C5				

<2.3 CAMERA SECTION AND BOARD ASSEMBLY>

Symbol No.	[1]		[2]/[3]		[4]					[5]	
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11
Place to stick screw											
Screw tightening torque	Ⅰ										
Reference drawing	Fig.D1		Fig.D2		Fig.D3					Fig.D4	

<2.4 MONITOR ASSEMBLY>

Symbol No.	[7]			
Removing order of screw	1	2	3	4
Place to stick screw				
Screw tightening torque	Ⅰ			
Reference drawing	Fig.2-4-1			

<2.5 OP BLOCK ASSEMBLY>

Symbol No.	[2]										
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11
Place to stick screw											
Screw tightening torque	Ⅱ	Ⅲ									
Reference drawing	Fig.2-5-1										

<NOTE>

·* : Don't reuse the screw, because screw lock bond was applied to them.

·Pay careful attention to tightening torque for each screw.

Ⅰ : 0.196N·m(2.0kgf·cm) Ⅱ : 0.118N·m(1.2kgf·cm) Ⅲ : 0.078N·m(0.8kgf·cm)

SECTION 3
ADJUSTMENT

3.1 PREPARATION

(1) Precaution

This model does not contain adjustment controls (VR). General deck system, camera system and monitor system adjustment are not required. However, if MAIN board need replacement, please use original EEP ROM on to new board. Then adjustment are not required. And if parts such as the following need replacement, special computerized adjustment are required. 3.4.1 ELECTRICAL ADJUSTMENT WITH PERSONAL COMPUTER is setup and it adjusts using a service support system. Please contact to JVC Service for detail information.

- OP BLOCK
- EEP ROM (IC102 of MAIN board)
- MONITOR

In the event of malfunction with electrical circuits, troubleshooting with the aid of proper test instruments most be done first, and then commence necessary repair, replacement and adjustment, etc.

a) In case of wiring to chip test points for measurement, use IC clips, etc. to avoid any stress.
b) Since connectors are fragile, carefully handle them in disconnecting and connecting.
c) Short circuit between operation unit and DECK chassis.

(2) Required test equipment

a) Color TV monitor.
b) AC power adapter
c) Oscilloscope (dual-trace type, observable 100 MHz or higher frequency)
   - It is recommended to use one observable 300 MHz or higher frequency.
d) Digital voltmeter
e) Frequency counter (with threshold level adjuster)
f) Personal computer

3.2 TOOLS REQUIRED FOR ADJUSTMENT

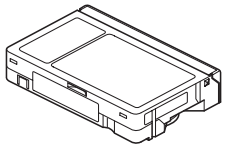
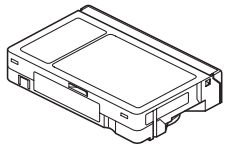
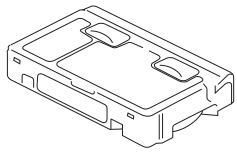
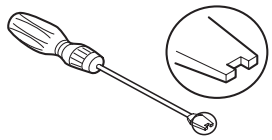
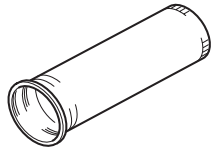
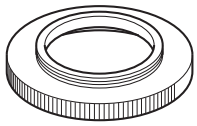
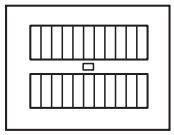
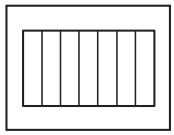
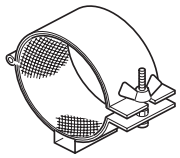
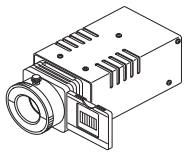
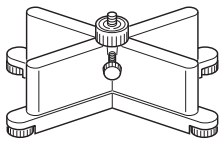
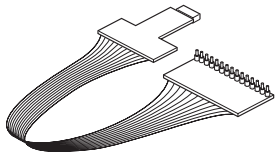
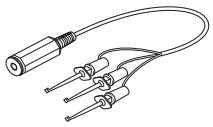
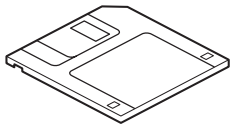
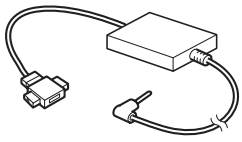
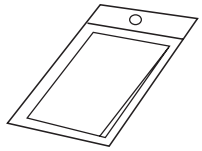
1 Alignment tape MHPE-C	2 Alignment tape MHPE-LC
	
3 Cassette torque meter PUJ50431-2	4 Roller driver PTU94002-2
	
5 INF adjustment lens YTU92001B	6 Conn. ring YTU92001-111
	
7 Gray scale chart YTU94133A	8 Color bar chart YTU94133C
	
9 INF lens holder YTU94087	10 Light box assembly YTU93096A
	
11 Camera stand YTU93079	12 Jig connector cable YTU93082G
	
13 Communication cable YTU93107A	14 Service support system YTU94057-65
	
15 PC cable QAM0099-002	16 Cleaning cloth KSMM-01
	

Fig.3-2-1

1,2. Alignment tape

To be used for check and adjustment of interchangeability of the mechanism.
(Video: Color bar signal, Audio: Non-signal)

3. Cassette torque meter

This is used to cheek the back tension and play torque during mechanism adjustment.

4. Roller driver

To be used to turn the Roller driver to adjustment of the linearity of playback envelope.

5.INF adjustment lens

To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.

6.Conn. ring

The connector ring to attach the INF lens to the head of the OP lens. For the usage of the Conn.ring.

7.Gray scale chart

To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.

8.Color bar chart

To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.

9.INF lens holder

To be used together with the Camera stand (11) for operating the Videocamera in the stripped-down condition such as the status without the exterior parts or for using commodities that are not yet conformable to the interchangeable ring. For the usage of the INF lens holder, refer to the Service Bulletin No. YA-SB-10035.

10.Light box assembly

To be used for adjustment of the camera system. For the usage of the Light box assembly, refer to the Service Bulletin No. YA-SB-10035.

11.Camera stand

To be used together with the INF adjustment lens holder. For the usage of the Camera stand, refer to the Service Bulletin No. YA-SB-10035.

12. Jig connector cable

To be connected to the Jig connector jack of the main board and used for measurement and adjustment.

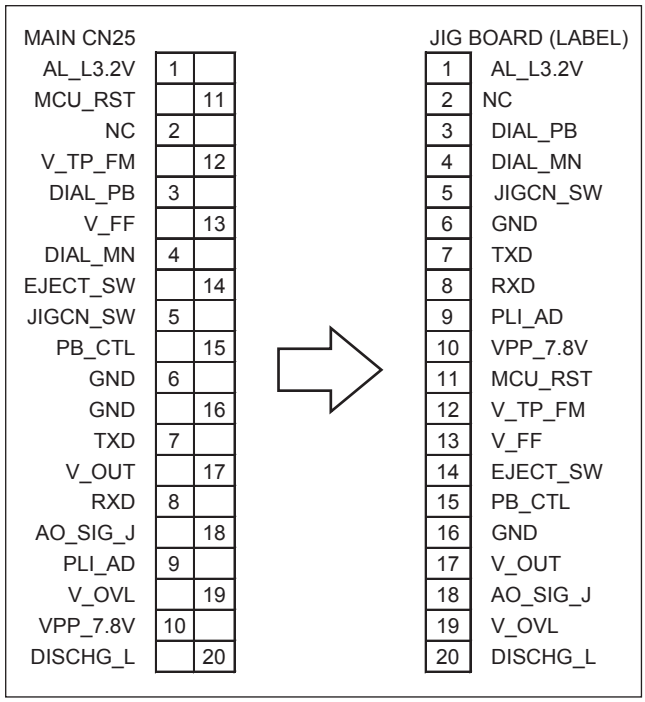


Fig.3-2-2

13.Communication Cable

Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.

14.Service support system

To be used for adjustment with a personal computer. Software can be downloaded also from JS-net.

15.PC cable

To be used to connect the Videocamera and a personal computer with each other when a personal computer issued for adjustment.

16.Cleaning cloth

Recommended the Cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

3.3 MECHANISM ADJUSTMENT

3.3.1 TAPE TRANSPORT ADJUSTMENT

Mechanism adjustment is needed when DRUM ASSEMBLY or a part of the tape transport system is replaced. To protect tapes from damage, first clean the tape transport system, next confirm that nothing is wrong with the tape transport system by using a tape that can be disposed of, and then perform adjustment with alignment tape. Some exterior parts should be removed before some adjustment procedures, depending on the procedures.

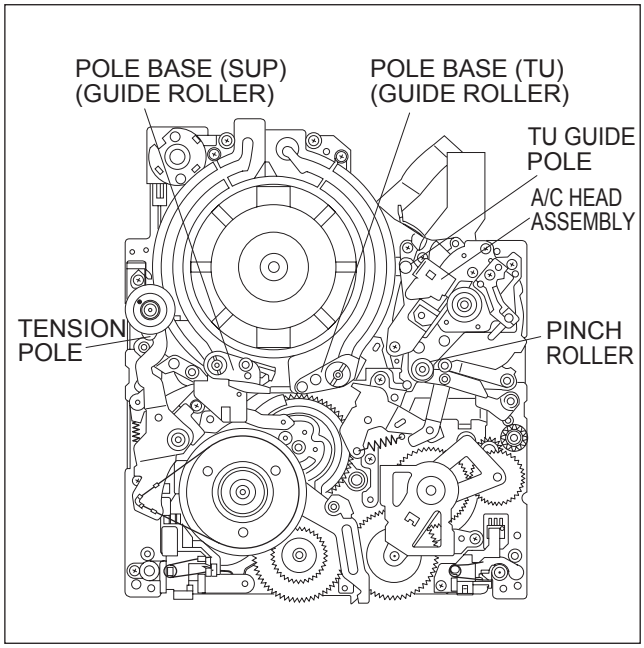


Fig.3-3-1

3.3.2 Back tension

Remove the exterior parts attached to CASSETTE HOUSING ASSEMBLY so that scales of CASSETTE TORQUE METER can be read.

- CASE COVER(S),(M) ASSEMBLY
- C. COVER INSIDE

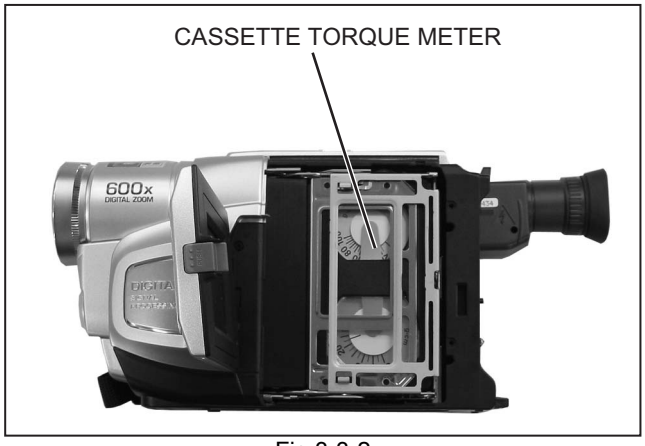


Fig.3-3-2

(1) Set a cassette torque meter onto the deck and measure the back tension in standard PB mode to confirm that the back tension is $0.97x10^{-3}$ - $1.71x10^{-3}$ N•m.
(2) If not, replace the tension band.
When the value widely fluctuates in the measurement, replace the SUPPLY REEL DISK.
(3) With the CASSETTE TORQUE METER, confirm that the play torque is $1.47x10^{-3}$ - $2.45x10^{-3}$ N•m.
If necessary, replace the center pulley unit.

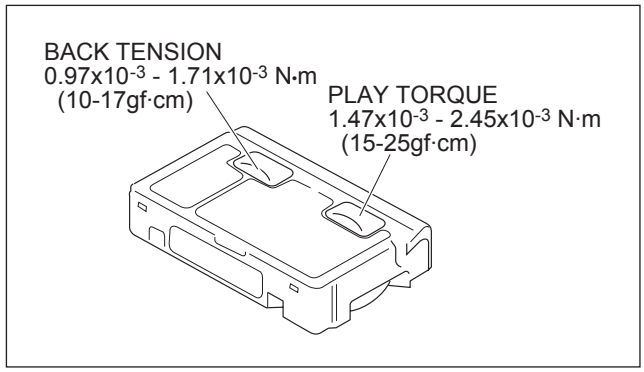


Fig.3-3-3

3.3.3 Tape pattern

Remove the exterior parts attached to the UPPER CASE ASSEMBLY so that the guide roller beside the DRUM ASSEMBLY can be rotated.

- LOWER CASE ASSEMBLY
- TOP OPE UNIT
- CASE COVER(S),(M) ASSEMBLY
- UPPER CASE (S),(M) ASSEMBLY

NOTE:

In performing adjustment, it is recommended that LOWER CASE ASSEMBLY and TOP OPE UNIT are attached to the main body for better operation and safety.

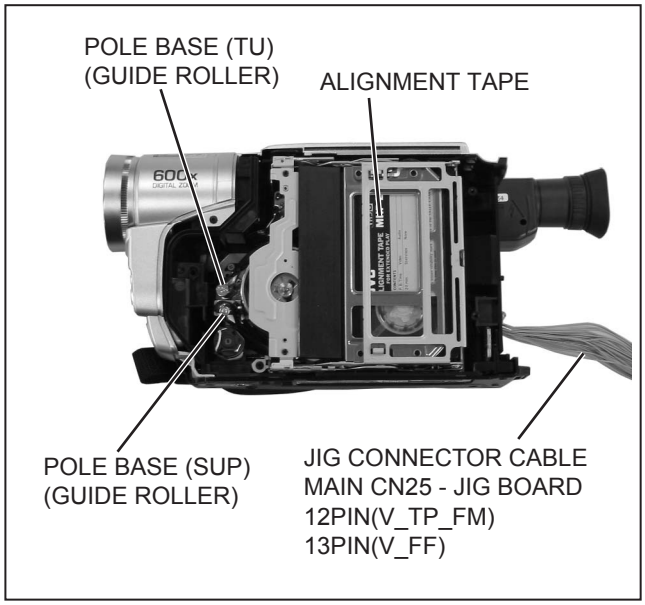


Fig.3-3-4

(1) Remove the Cover (JIG) shown on Fig.3-4-1.
(2) Connect the JIG CONNECTOR CABLE to CN25 on the MAIN BOARD ASSEMBLY as shown on Fig. 3-2-2.
(3) Observe signal at V_TP_FM with external trigger from V_FF on the JIG CONNECTOR CABLE.
(4) Playback the SP stairstep signal of the alignment tape and maximize the FM waveform by the tracking button.
(5) Set the tracking control to the center position by simultaneously pressing the tracking (-) and (+) buttons and maximize the FM waveform by the tracking button.
(6) If the observed FM waveform is not flat, adjust the height of the SUPPLY of TAKE-UP GUIDE ROLLER with the roller driver.

NOTE:

To prevent the tape from damage, turn the guide rollers slowly.

(7) By operating the tracking button (both in + and - directions) in the manual tracking mode, vary the output level of the FM waveform from maximum to minimum and vice versa to confirm that the waveform varies nearly in a flat shape.

(8) When the FM waveform breaks in the level varying process, subtly adjust the height of guide rollers at every breaking point so that the waveform varies as flat as possible.
Repeat the above steps 6. and 7. several times to confirm that the waveform is flat as a whole.

(9) Playback the SP stairstep signal of alighment tape and adjust the tracking control to maximize the FM waveform, confirm that FM waveform variation is always flat.

(10) Record the signal and play it back in both of the SP and LP modes, and confirm that the FM waveform is flat in both modes.

NOTE:

Among the above-mentioned adjustment steps, the items of No.9 and No.10 are needed for the LP model only.

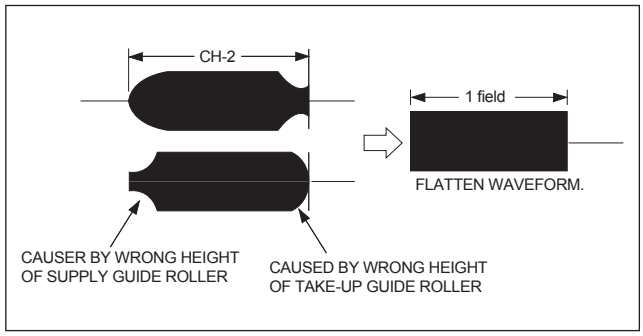


Fig.3-3-5

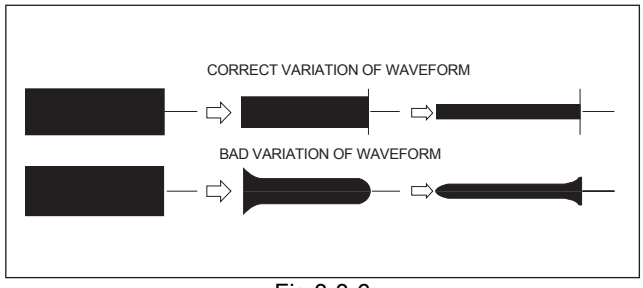


Fig.3-3-6

(11) Through the above steps, confirm that there occur no wrinkling and damage in the tape around the PINCH ROLLER and TU GUIDE POLE whenever the deck is in operation of Loading/Unloading, Search Rewind and at mode change from Search Rewind to play mode. If wrinkling or damage in the tape occurs around the TU GUIDE POLE, adjust the angle (slant) of the A/C HEAD to the tape. So that the tape normally runs along the lower flange of the GUIDE POLE.

3.3.4 A/C head height & azimuth

Remove the exterior parts attached to the UPPER CASE ASSEMBLY so that the screws around the A/C HEAD ASSEMBLY can be tighten or loosen.

- LOWER CASE ASSEMBLY
- TOP OPE UNIT
- CASE COVER(S),(M) ASSEMBLY
- UPPER CASE (S),(M) ASSEMBLY
- FRONT FRAME ASSEMBLY

NOTE:

In performing adjustment, it is recommended that LOWER CASE ASSEMBLY and TOP OPE UNIT are attached to the main body for better operation and safety.

(1) Remove the Cover (JIG) shown on Fig.3-4-1.

(2) Connect the JIG CONNECTOR CABLE to CN25 on the MAIN BOARD ASSEMBLY.

(3) Connect the channel-1 scope probe to the audio output (AO_SIG_J) and connect the channel-2 scope probe to PB CTL.

(4) Playback the alignment tape.

(5) Set the tracking to its center range by pressing the (+) and (-) tracking controls simultaneously.

(6) Adjust screws **A** , **B** and **C** approximately 45 degrees in the same direction to obtain maximum audio output and CTL signal levels.

(7) As a final fine adjustment, adjust screw **B** for minimum signal level fluctuation and screw **C** for maximum output signal level.

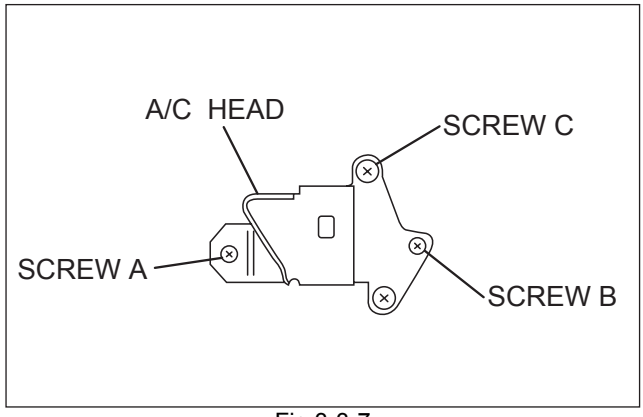


Fig.3-3-7

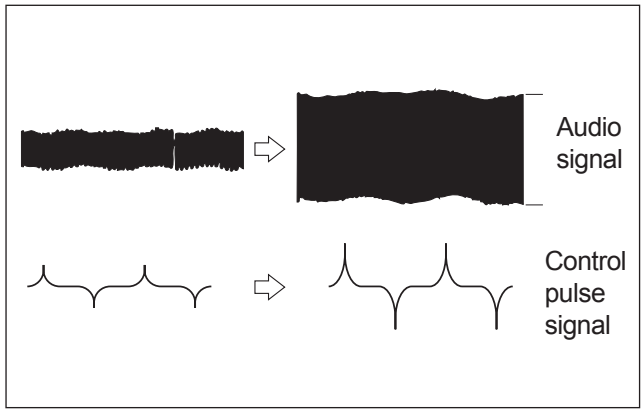


Fig.3-3-8

3.3.5 Phase of control head (X value)

Note:

Remove the exterior parts attached to the UPPER CASE ASSEMBLY so that the screws around the A/C HEAD ASSEMBLY can be tighten or loosen.

(1) Connect the JIG CONNECTOR CABLE to CN25 on the MAIN BOARD ASSEMBLY.
(2) Playback the SP stairstep signal of the alignment tape and observe signal at V_TP_FM with external trigger from V_FF on the JIG CONNECTOR CABLE.
(3) Operate the tracking button in the center and manual tracking mode by pressing the tracking (+) and (-) buttons and confirm that the FM output level is maximum at the center position as shown in Fig. 3-3-9.
(4) If necessary, slightly loosen the setscrews **D** and **E** and insert the Tweezers into the notch and guide hole to move the A/C HEAD fully in the direction of the capstan to the extent.
(5) Gradually move the A/C HEAD toward the drum to find the position where the FM output level maximum for the first time (a' - b' in Fig. 3-3-9).
(6) Fine adjust the phase of the A/C HEAD and tighten the screws **D** and **E** at the point a.

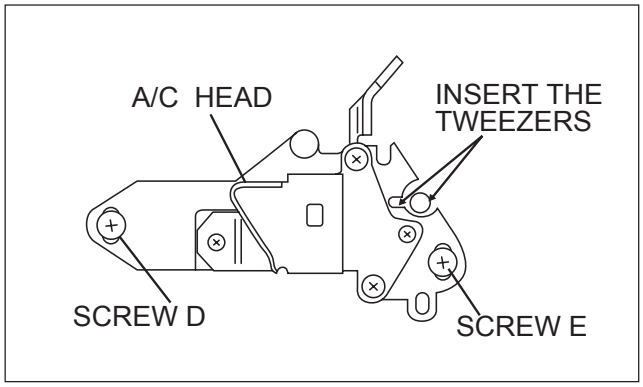


Fig.3-3-8

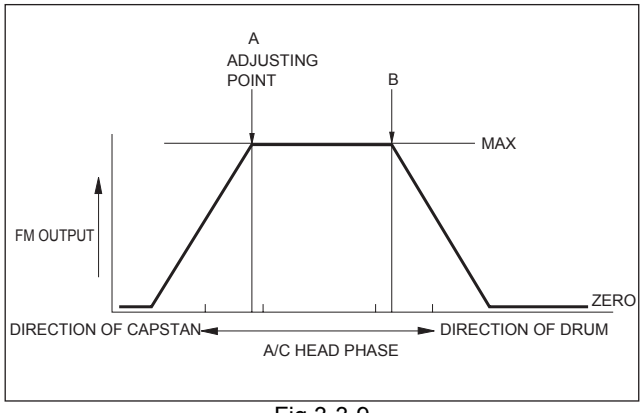


Fig.3-3-9

3.4 ELECTRICAL ADJUSTMENT

3.4.1 ELECTRICAL ADJUSTMENT WITH PERSONAL COMPUTER

- Electrical adjustment except for B/W VF ASSEMBLY is performed by using PERSONAL COMPUTER. As for the cable connection, see Fig. 3-4-1. Read README.TXT file to use the software for SERVICE SUPPORT SYSTEM properly.
- Remove the COVER (JIG) to perform adjustment.

NOTE:

For the connection of the JIG CONNECTOR CABLE, refer to Fig.3-4-1.

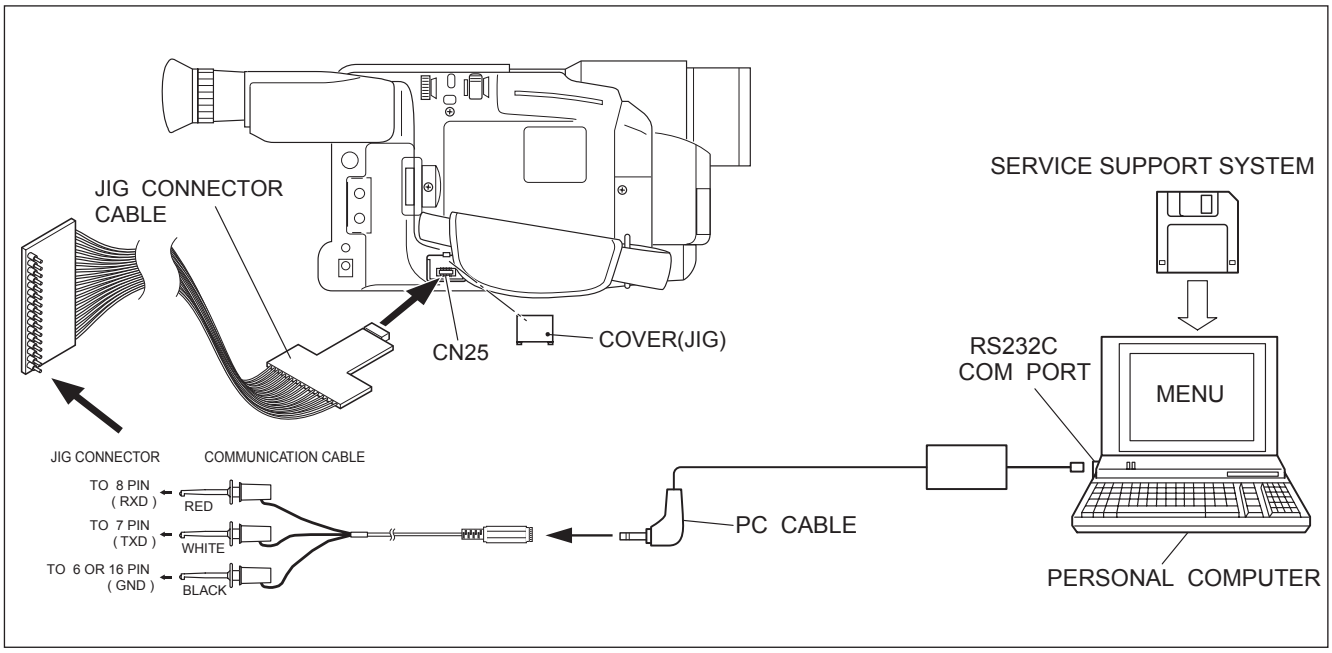


Fig.3-4-1

3.4.2 B/W VF ASSEMBLY (E. VF) ADJUSTMENT

Referring to "SEC. 2 SPECIFIC SERVICE INSTRUCTIONS" and connect the E. VF WIRE to CN12 of the MAIN BOARD ASSEMBLY.

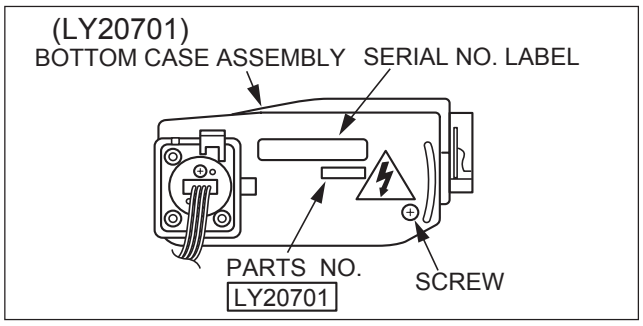


Fig.3-4-2

NOTE:

- Unless otherwise specified, all measurement points and adjustment parts are located on E. VF BOARD ASSEMBLY.
- After adjustment or replacement of the deflection yoke or the centering magnet, fix it by the band as shown the figure below.

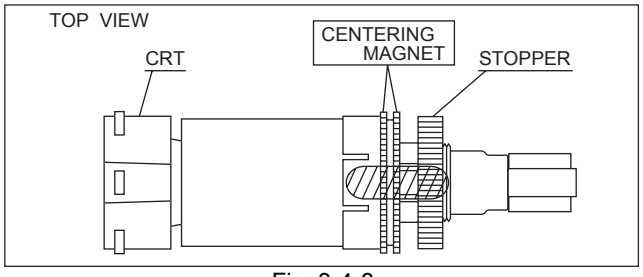


Fig. 3-4-3

- After adjustment is completed, compare the picture on the E. VF screen with the monitor TV.

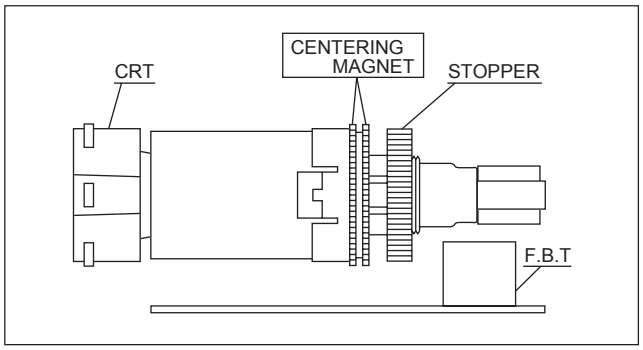


Fig. 3-4-4

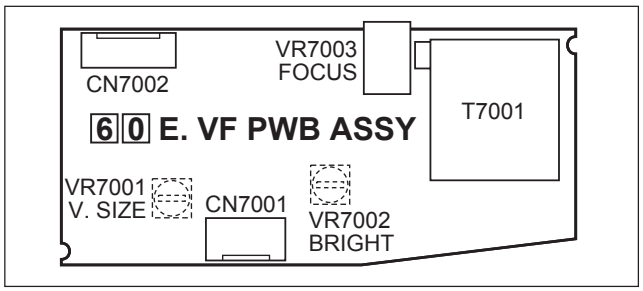


Fig. 3-4-5

3.4.2.1 Tilt

Subject	• Alignment tape • Stairstep
Mode	• PB
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• Deflection yoke
Specification	• The picture is visible as same as monitor TV.

(1) Put the deflection yoke to the most inner side of CRT neck first. Then fix the stopper temporary.
(2) Adjust the tilt of picture on the E. VF screen by tilting the deflection yoke.
(3) Fix the stopper completely.

3.4.2.2 Centering

Subject	• Alignment tape • Stairstep
Mode	• PB
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• Centering magnet (CRT BOARD ASSEMBLY)
Specification	• The center of the E. VF screen

(1) While observing the viewfinder screen, adjust the centering magnet to locate the stairstep in the center of the view-finder screen.

3.4.2.3 Vertical scanning

Subject	• Camera picture
Mode	• EE
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• VR7001 (V. SIZE)
Specification	• Normal picture amplitude

(1) Observing the viewfinder screen, adjust VR7001 for normal picture amplitude.

3.4.2.4 Brightness

Subject	• -
Mode	• EE • Lens closed
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• VR7002 (BRIGHT)
Specification	• The CRT raster is just barely visible

(1) Close the lens with the cap and adjust VR7002 so that the raster of the CRT is just visible in the E. VF.

3.4.2.5 Focus

Subject	• Camera picture
Mode	• EE
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• VR7003 (FOCUS)
Specification	• The center area is clear and defined

(1) While observing the viewfinder screen, adjust VR7003 so that the picture at the central area of the screen is clear and defined.

JVC

VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY CAMCORDER CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.86712)

Printed in Japan
200301WPC

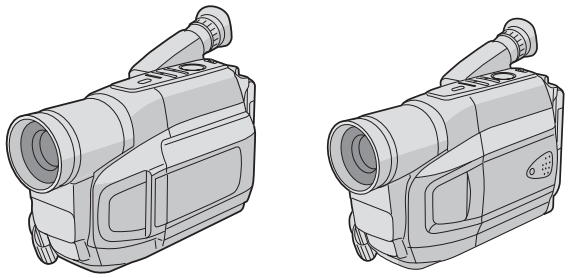
JVC

SCHEMATIC DIAGRAMS

COMPACT VHS CAMCORDER

GR-SX25EK,GR-SX25Ex,GR-SX25Ez
GR-SXM49EK,GR-SXM49Ex,GR-SXM49Ez

CD-ROM No.SML200302



S-VHS C VHS PAL 625
Super VHS
Super VHS ET

For disassembling and assembling of MECHANISM ASSEMBLY, refer to the SERVICE MANUAL No.86700 (MECHANISM ASSEMBLY).

SPECIFICATION

Camcorder

General

Format : S-VHS (GR-SXM49/SX25 only)/ VHS PAL standard
Power source : DC 11 V ⎓ (Using AC Adapter)
DC 6 V ⎓ (Using battery pack)
Power consumption
Viewfinder on : 4.2 W (GR-SXM49/FXM393/FXM39 only)
4.0 W (GR-SX25/FX15 only)
LCD monitor* on : 4.7 W (GR-SXM49/FXM393/FXM39 only)
Video light** : 3.0 W
* Applicable models only.
** GR-SXM49/FXM393/SX25 only.
Signal system : PAL-type
Video recording system
Luminance : FM recording
Colour : Converted sub-carrier direct recording
Conforms to VHS standard
Cassette : S-VHS C / VHS C cassette
Tape speed
SP : 23.39 mm/sec.
LP : 11.70 mm/sec.
Recording time (max.)
SP : 60 minutes
LP : 120 minutes (with EC-60 cassette)
Operating temperature : 0ºC to 40ºC
Operating humidity : 35% to 80%
Storage temperature : -20ºC to 50ºC
Weight : Approx. 840 g (GR-SXM49/FXM393/FXM39 only)
Approx. 760 g (GR-SX25 only)
Approx. 750 g (GR-FX15 only)
Dimensions (W x H x D) : 113 mm x 117 mm x 199 mm (GR-SXM49/FXM393/FXM39 only)
108 mm x 117 mm x 199 mm (GR-SX25/FX15 only)
(with the LCD monitor* closed and with the viewfinder fully tilted downward)

* Applicable models only.

Pickup : 1/6" format CCD
Lens : F1.6, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens with auto iris and macro control, filter diameter 40.5 mm
Viewfinder : Electronic viewfinder with 0.5" black/white CRT White balance
White balance adjustment : Auto/Manual adjustment
Speaker (Applicable models only) : Monaural
LCD monitor (Applicable models only) : 2.5" diagonally measured, LCD panel/ TFT active matrix system

Connectors

Video : 1 V (p-p), 75 Ω unbalanced, analogue output (via Video output connector)
Audio : 300 mV (rms), 1 k Ω, analogue output (via Audio output connector)
S-Video (GR-SXM49/SX25 only) : **Y**: 1 V (p-p), 75 Ω, analogue output
C: 0.30 V (p-p), 75 Ω, analogue output

AC Adapter

Power requirement : AC 110 V - 240 V ~, 50 Hz/60 Hz
Output : DC 11 V ⎓, 1 A

Optional Accessories

- **Battery Packs BN-V12U, BN-V20U, BN-V400U**
- **Compact S-VHS (S-VHS C) Cassettes SE-C45/30**
- **Compact VHS (VHS C) Cassettes EC-60/45/30**
- **Active Carrying Bag CB-V7U**
- **Cassette Adapter C-P7U**

Some accessories are not available in some areas. Please consult your nearest JVC dealer for details on accessories and their availability.

GR-SX25EK, GR-SX25EX, GR-SX25EZ, GR-SXM49EK, GR-SXM49EX, GR-SXM49EZ M3C7B3,M3C723

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No.86712SCH
2003/01

CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

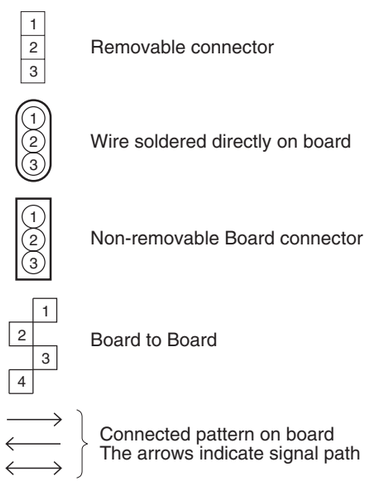
1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

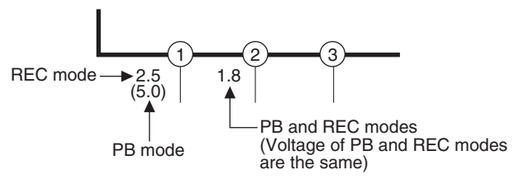
$\overline{AUX}$ or AUX(L) : Active at low

3. Interpreting Connector indications



4. Voltage measurement

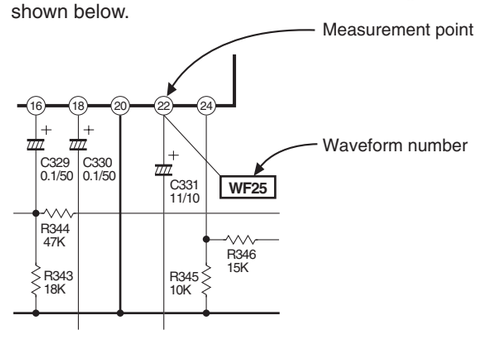
1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
   – : Unmeasurable or unnecessary to measure
2) Audio circuits
   REC : 1KHz, -8 dBs sine wave signal in SP mode, Normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



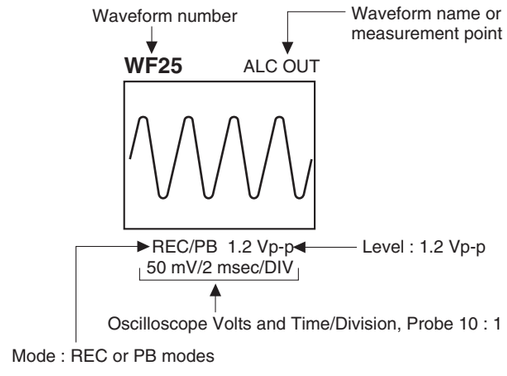
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
2) Audio circuits
   REC : 1KHz, -8 dBs sine wave signal in SP mode, normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test chatrs in the E-E mode
4) Indication on schematic diagram
   Waveform indications on the schematic diagram are as shown below.

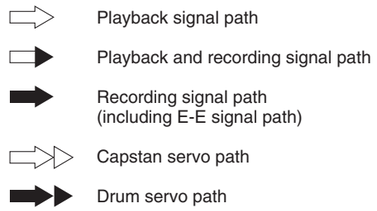


5) Waveform indications



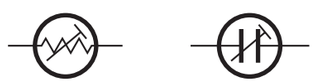
6. Signal path Symbols

The arrows indicate the signal path as follows.



7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.

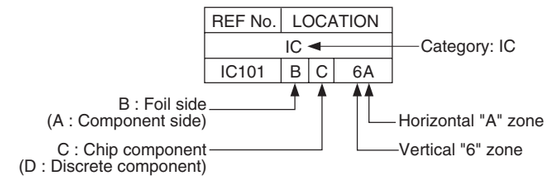
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

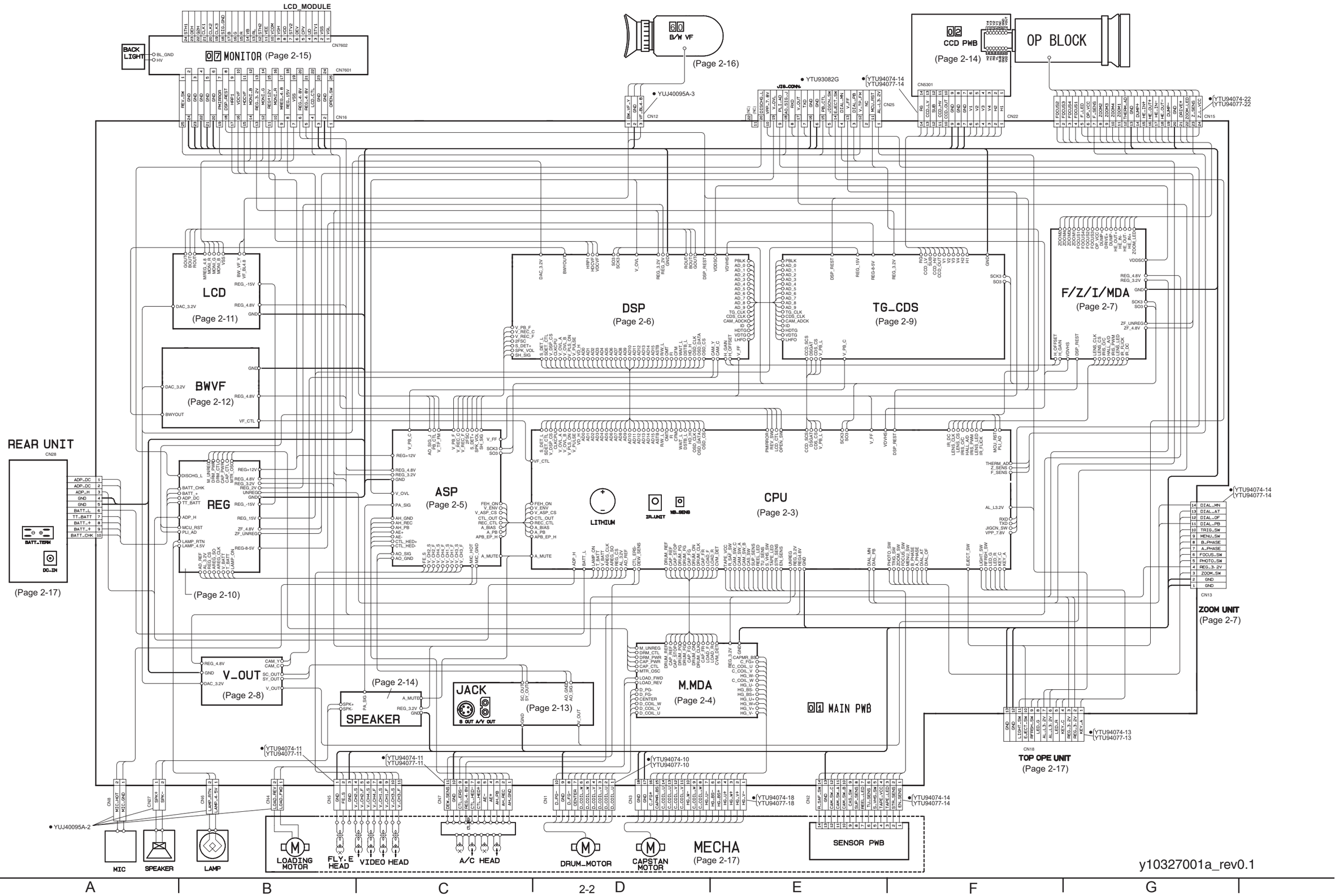
Parts location are indicated by guide scale on the circuit board.



Note:
For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

■ BOARD INTERCONNECTIONS

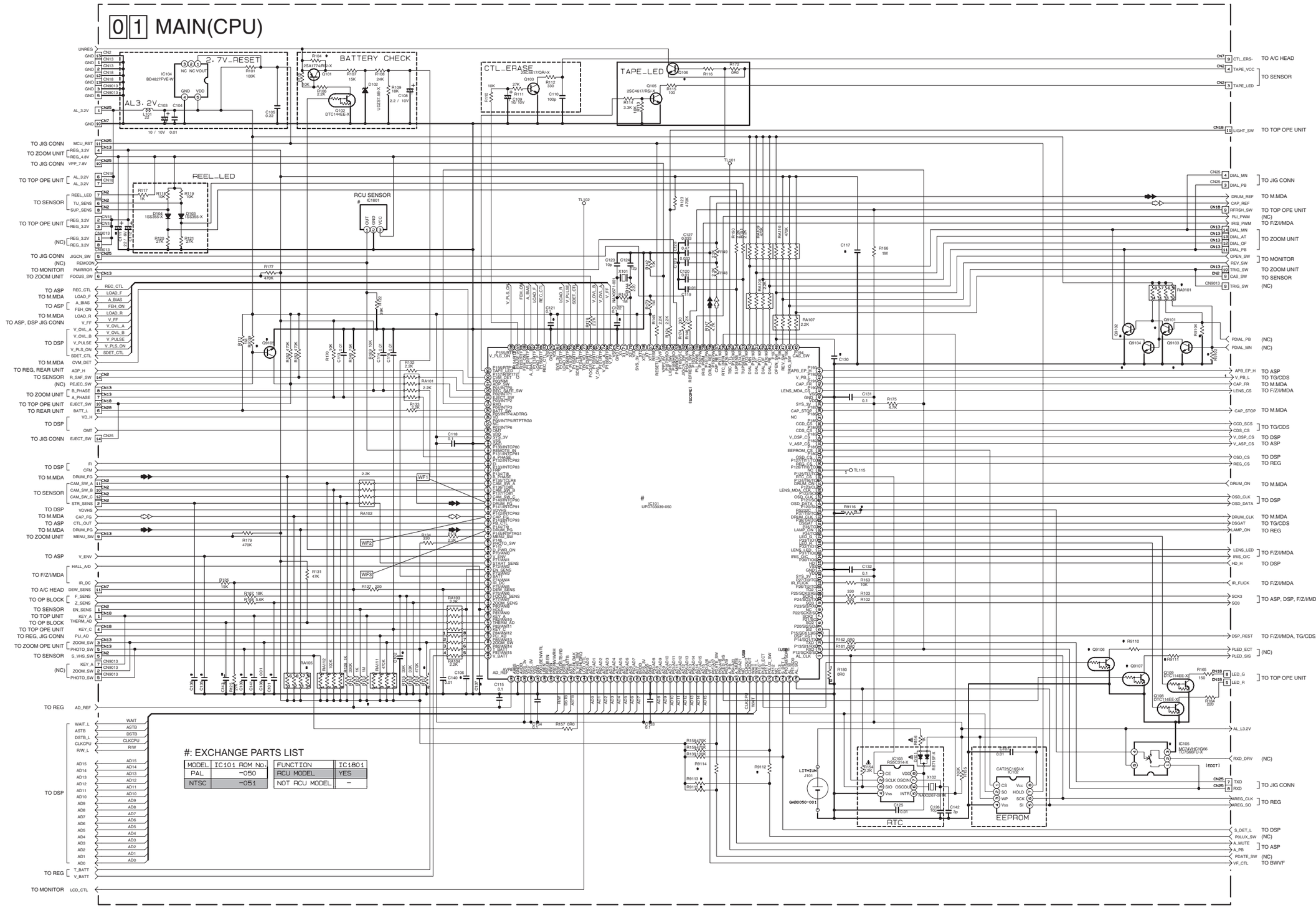
NOTES : ● *The number of patch cords are indicated by interconnected.*



y10327001a_rev0.1

■ CPU SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

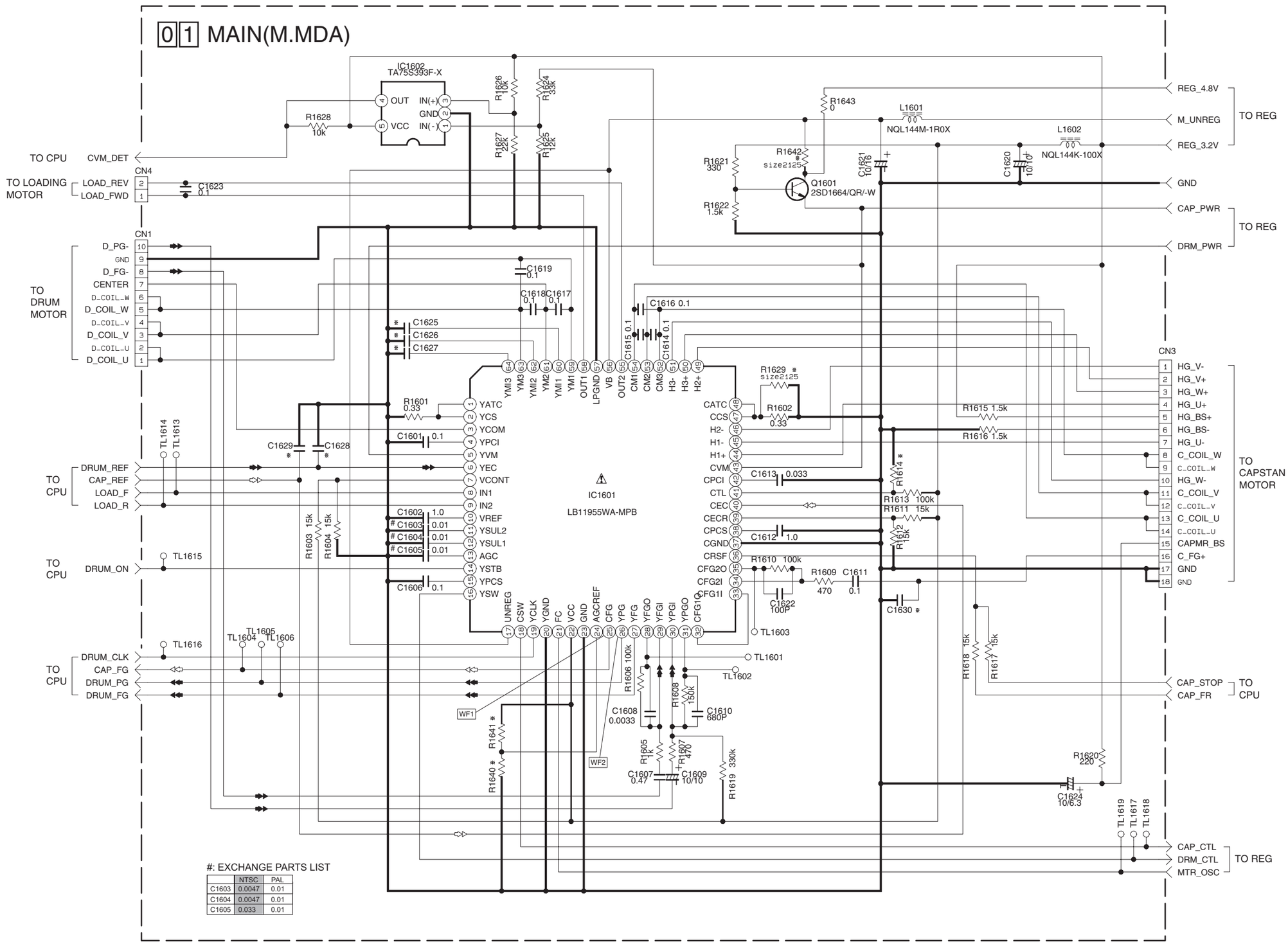


NOTES: 1. The parts with marked (※) is not used.
2. For CPU waveforms, please refer to page 2-23.

y10328001a_rev0.0

■ M.MDA SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



#: EXCHANGE PARTS LIST

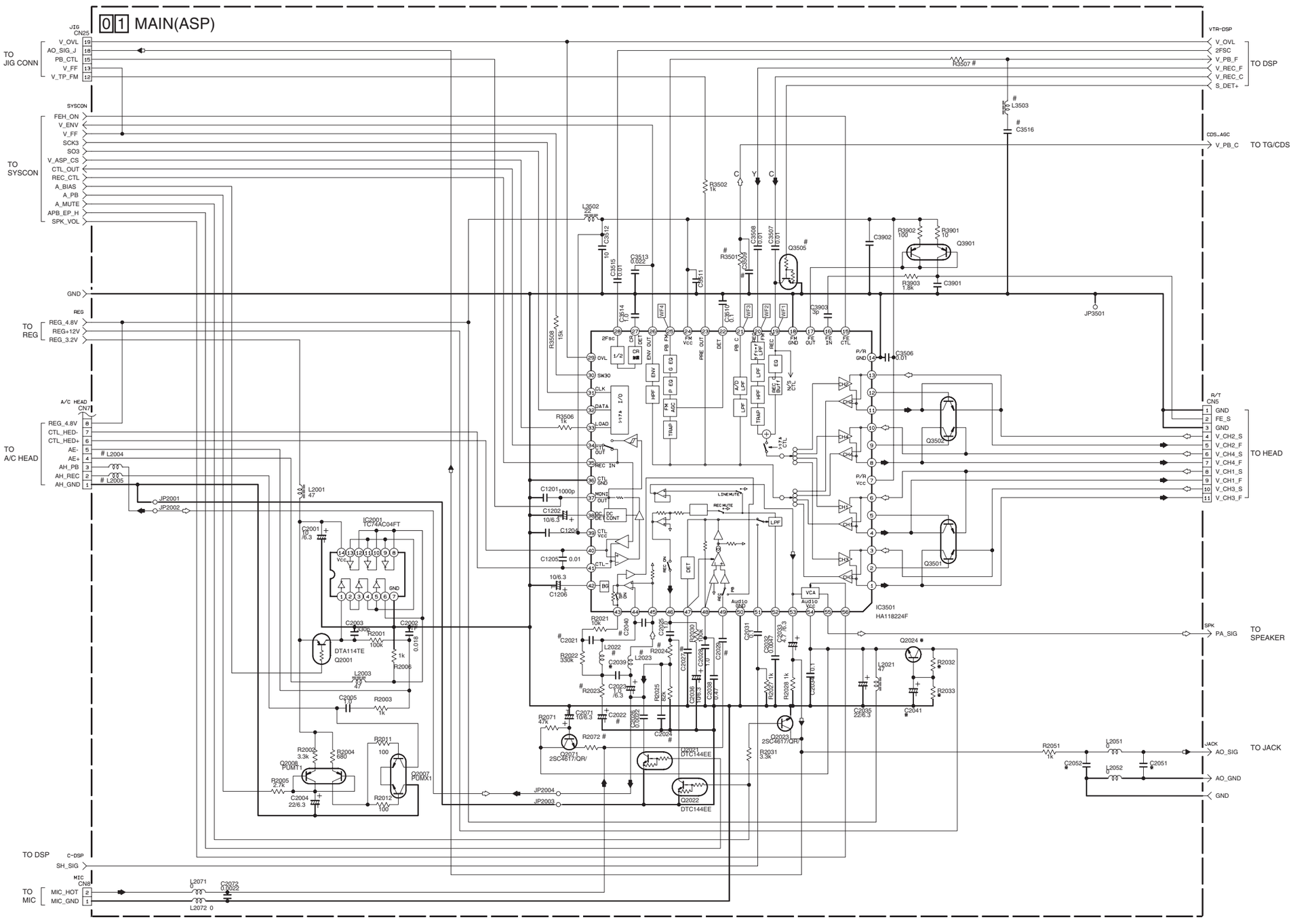
	NTSC	PAL
C1603	0.0047	0.01
C1604	0.0047	0.01
C1605	0.033	0.01

NOTES: 1. The parts with marked (※) is not used.
2. For M.MDA waveforms, please refer to page 2-23.

y20223001a_rev0.1

■ ASP SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTES: 1. The parts with marked (※) is not used.
2. For ASP waveforms, please refer to page 2-23.

y20225001a_rev0.1

#: EXCHANGE PARTS LIST

[VIDEO]

	VHS MODEL	SVHS MODEL
Q3505	#	DTC144EE

	NTSC	PAL
R3501	0 Ω	220
R3507	0 Ω	100
L3503	#	5.6
C3509	#	220p
C3516	#	10p

[AUDIO]

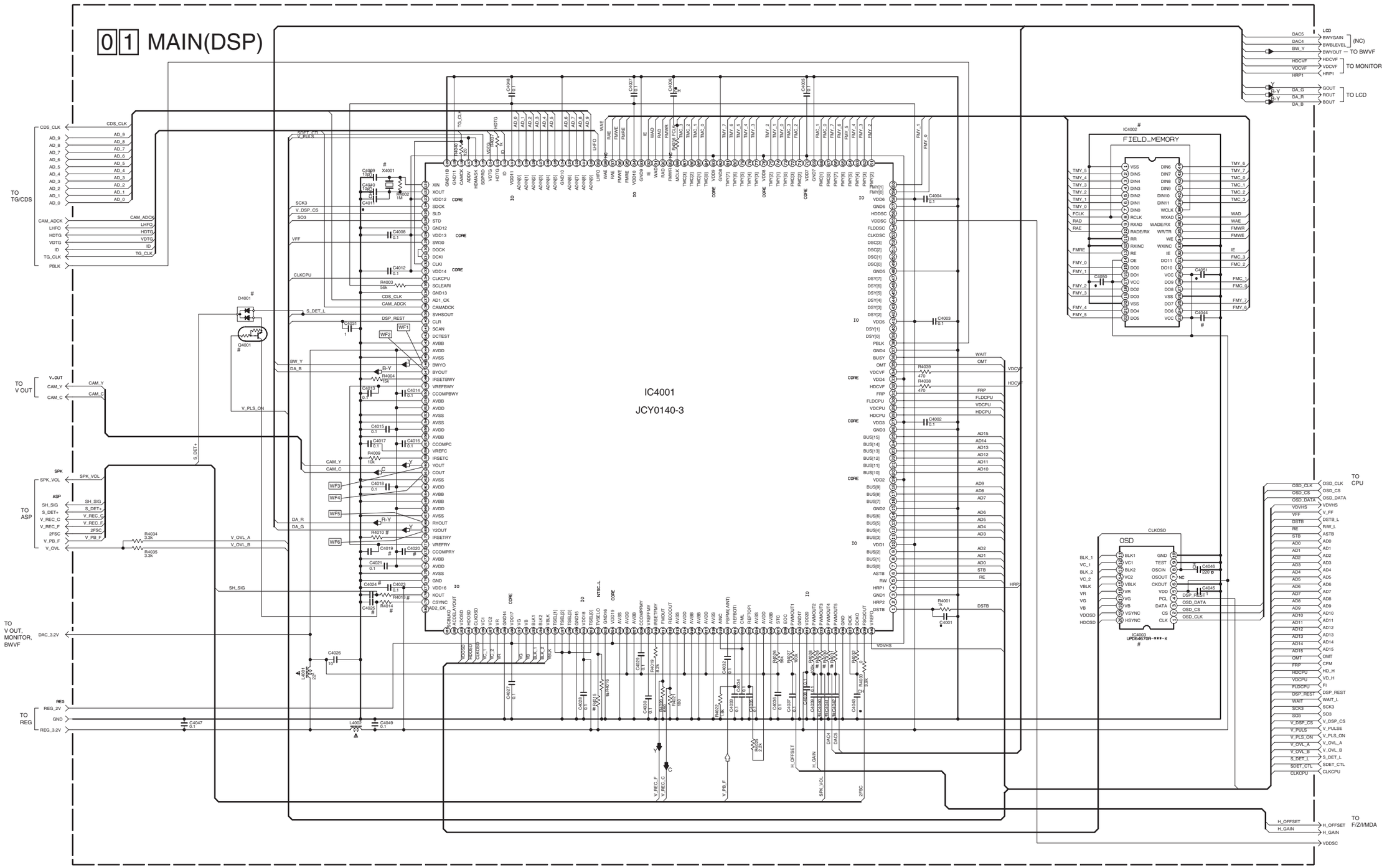
	NTSC	PAL
R2023	150	82
R2024	13k	18k
C2021	0.0068	0.01
C2022	10+/6.3	15+/6.3
C2024	0.0012	0.001

	NTSC	PAL
L2004	0 Ω	NQR0406-003X
L2005	0 Ω	NQR0406-003X
L2022	0 Ω	NQR0406-003X
L2023	0 Ω	NQR0406-003X
C2040	#	68p

	JVC	PANA
R2072	10k	5.6k
C2027	0.47	0.033
C2029	1.0	0.0047

■ DSP SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTES: 1. The parts with marked (※) is not used.
2. For DSP waveforms, please refer to page 2-23.

#: EXCHANGE PARTS LIST

	X4001	R4015	R4016
NTSC	2AX07090-001	●	0
PAL	2AX07080-001	0	●

	R4014	C4025	Q4001	D4001
VHS	●	●	●	●
S-VHS	10k	0.1	DTC144EE	DAN222

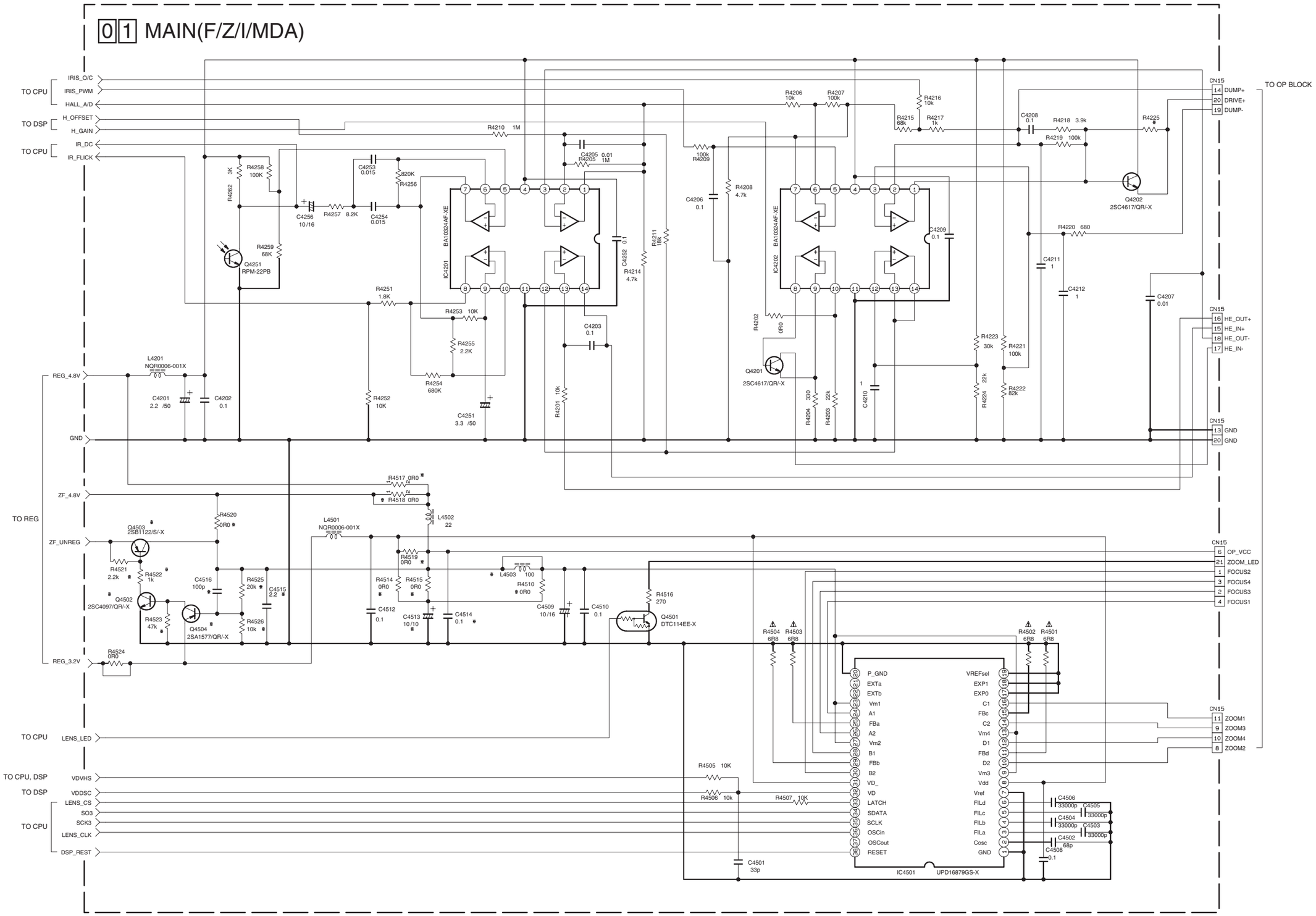
	IC4002	C4044	R4013	C4024	R4036
JVC MEMORY	MSM548331TA	1	1k	0.1	100
JVC NON MEMORY	●	●	●	●	●
Pana MEMORY	MSM548331TA	1	●	●	100
Pana NON MEMORY	●	●	●	●	●

	R4010	C4019	C4020	R4029	C4040	R4030	C4041	R4031	C4042	IC4003
JVC B/W VF ONLY	●	●	●	●	0.1	●	●	●	●	UPD6467GR-529-X
Pana B/W VF ONLY	●	●	●	●	●	1k	1	1k	1	UPD6467GR-531-X
JVC LCD MODEL	15k	0.1	0.1	100k	0.1	●	●	●	●	UPD6467GR-529-X
Pana LCD MODEL	15k	0.1	0.1	100k	0.1	1k	1	1k	1	UPD6467GR-531-X

y10329001a_rev0.0

■ F/Z/I/MDA SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

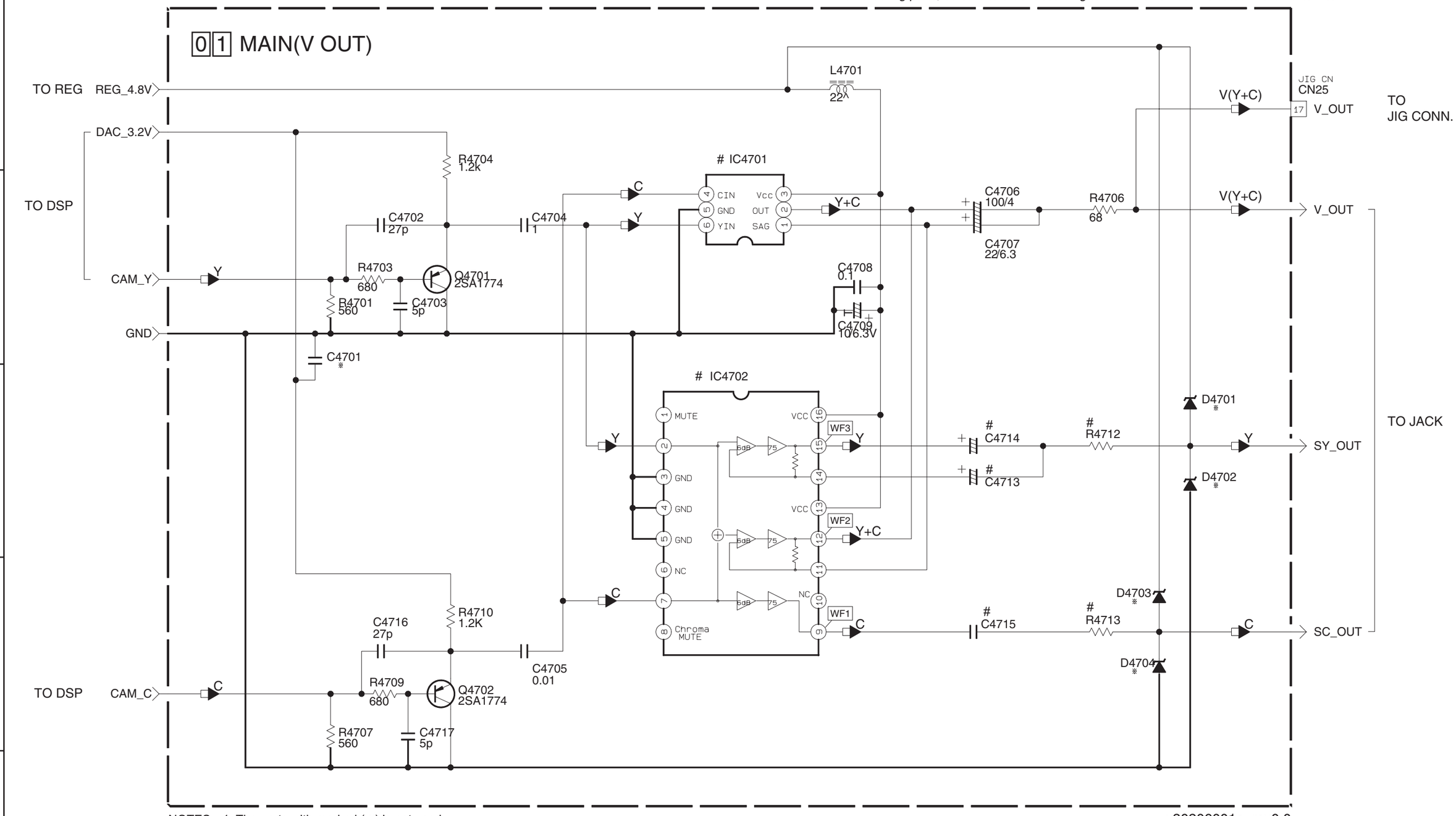


NOTE: The parts with marked (※) is not used.

y20224001a_rev0.1

■ V OUT SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTES: 1. The parts with marked (※) is not used.
2. For V OUT waveforms, please refer to page 2-23.

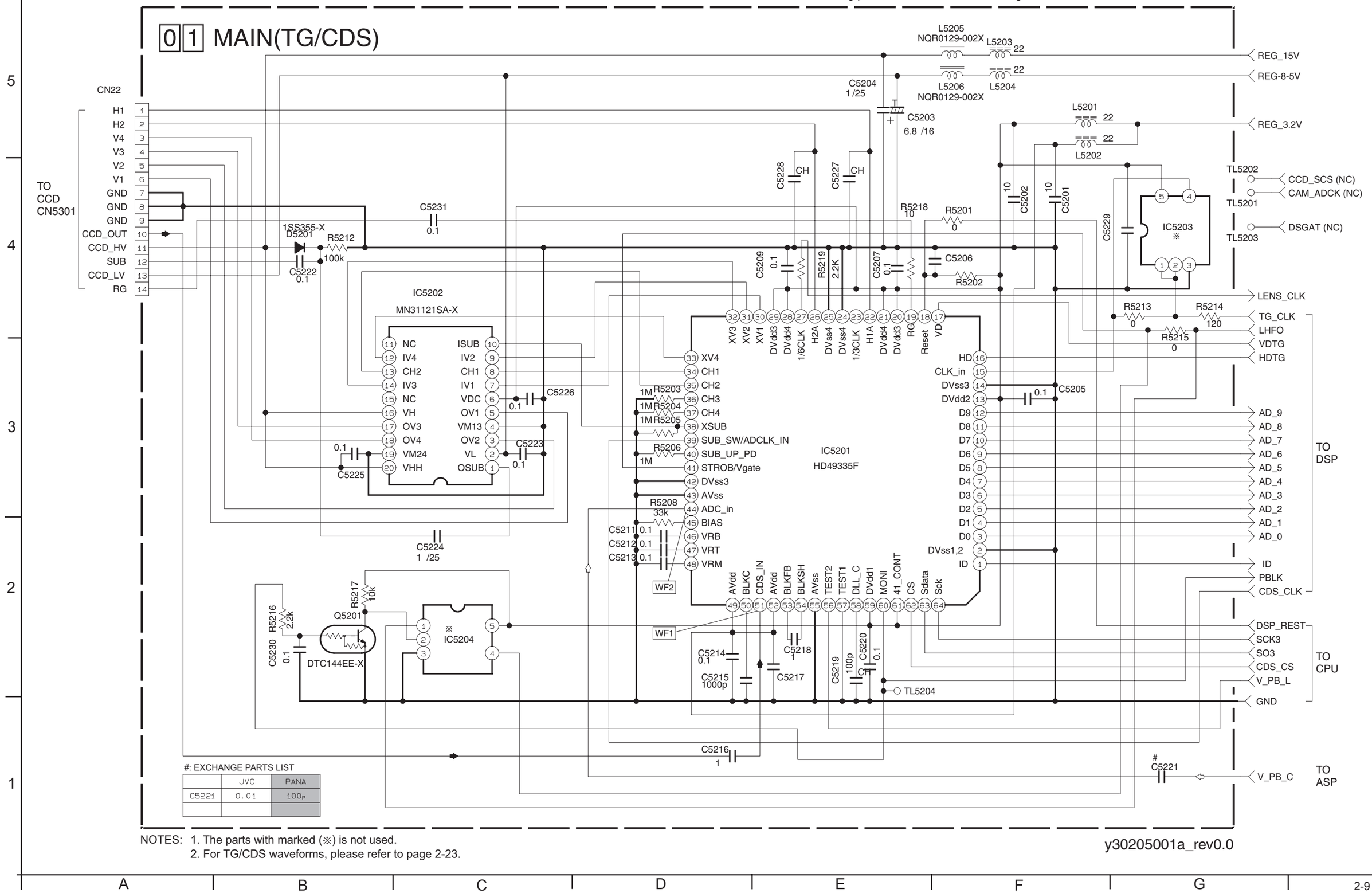
y30206001a_rev0.0

#: EXCHANGE PARTS LIST

	IC4701	IC4702	R4712	R4713	C4713	C4714	C4715
VHS MODEL	MM1512XN-X	※	※	※	※	※	※
SVHS MODEL	※	BA7665FS-X	68	68	22/6.3	100/4	0.01

■ TG/CDS SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



#: EXCHANGE PARTS LIST

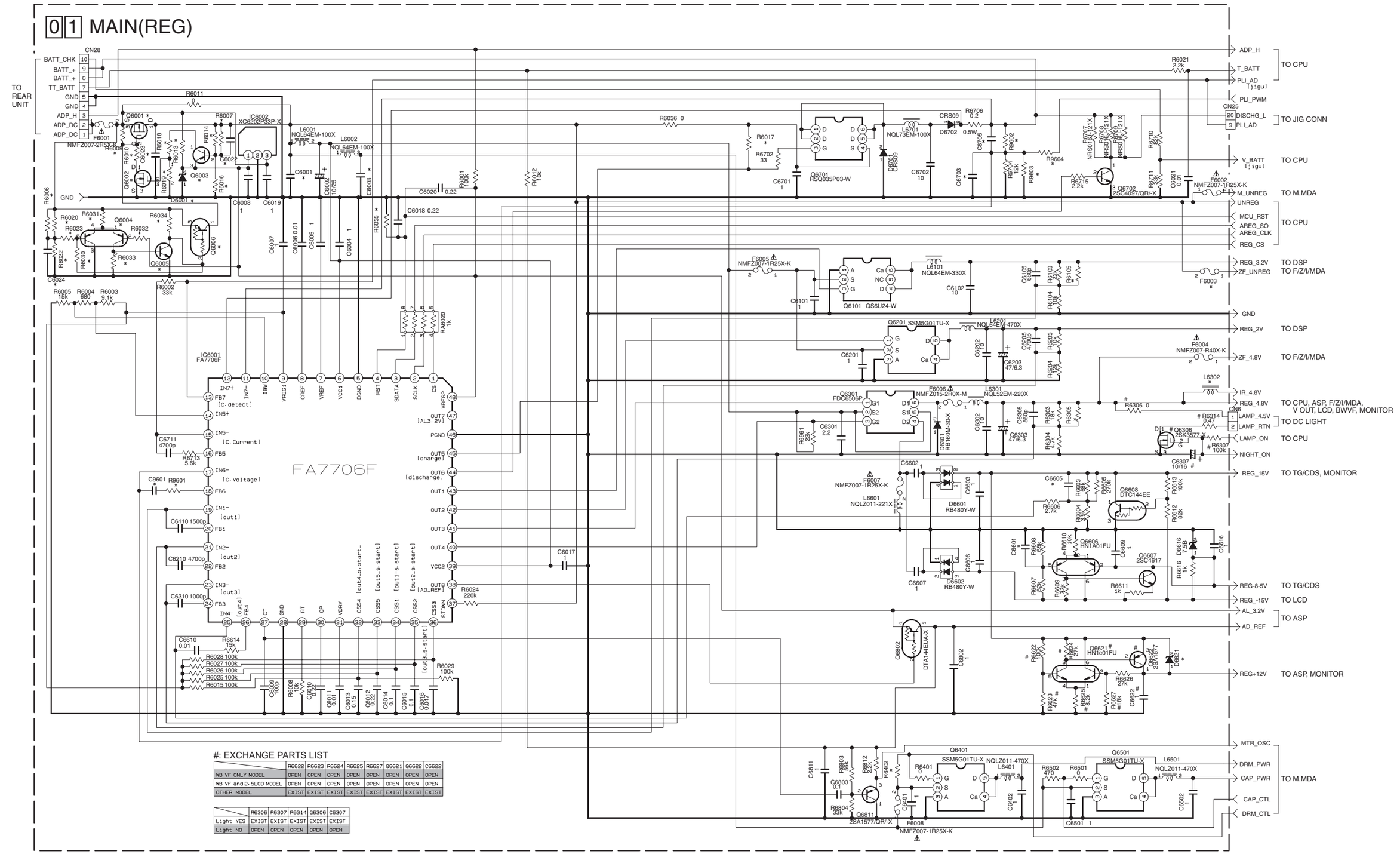
	JVC	PANA
C5221	0.01	100P

NOTES: 1. The parts with marked (※) is not used.
2. For TG/CDS waveforms, please refer to page 2-23.

y30205001a_rev0.0

■ REG SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



#: EXCHANGE PARTS LIST

	R6622	R6623	R6624	R6625	R6627	Q6621	Q6622	C6622
WB VF ONLY MODEL	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
WB VF and 2.5LCD MODEL	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
OTHER MODEL	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST

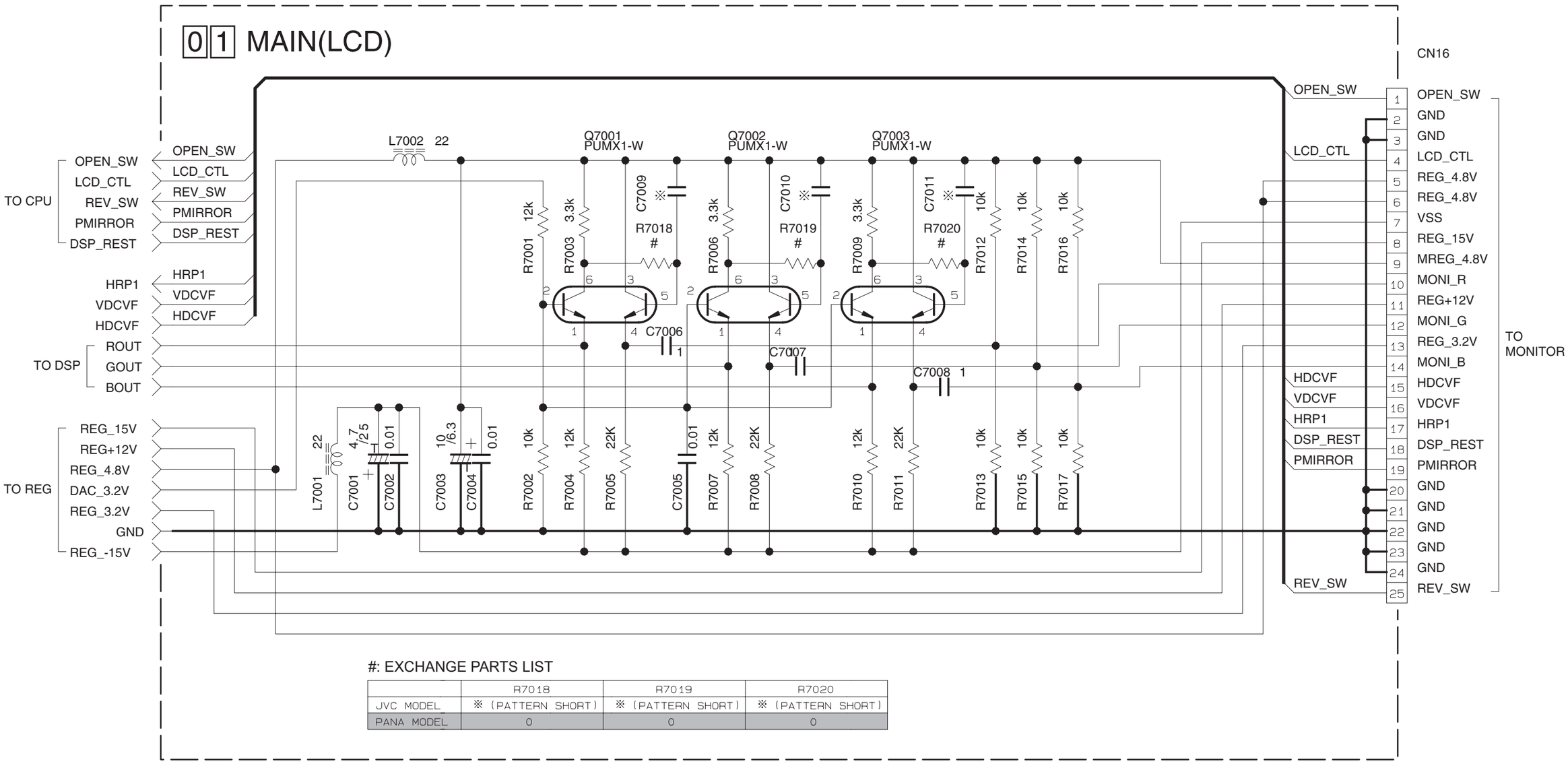
	R6306	R6307	R6314	Q6306	C6307
Light YES	EXIST	EXIST	EXIST	EXIST	EXIST
Light NO	OPEN	OPEN	OPEN	OPEN	OPEN

NOTE: The parts with marked (∗) is not used.

y20226001a_rev0.0

■ LCD SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



#: EXCHANGE PARTS LIST

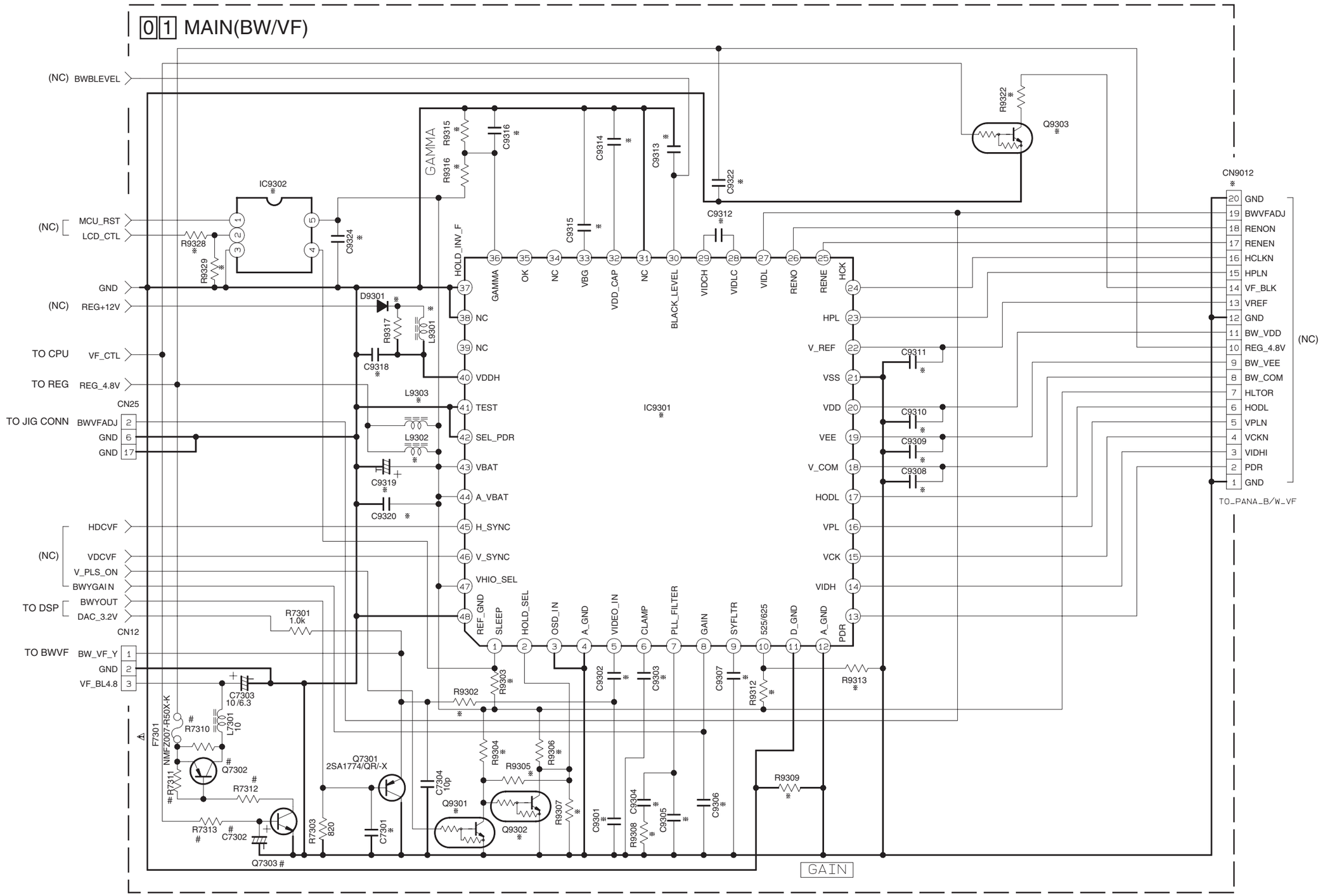
	R7018	R7019	R7020
JVC MODEL	※ (PATTERN SHORT)	※ (PATTERN SHORT)	※ (PATTERN SHORT)
PANA MODEL	0	0	0

NOTE: The parts with marked (※) is not used.

y30208001a_rev0.0

■ BW/VF SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTE: The parts with marked (※) is not used.

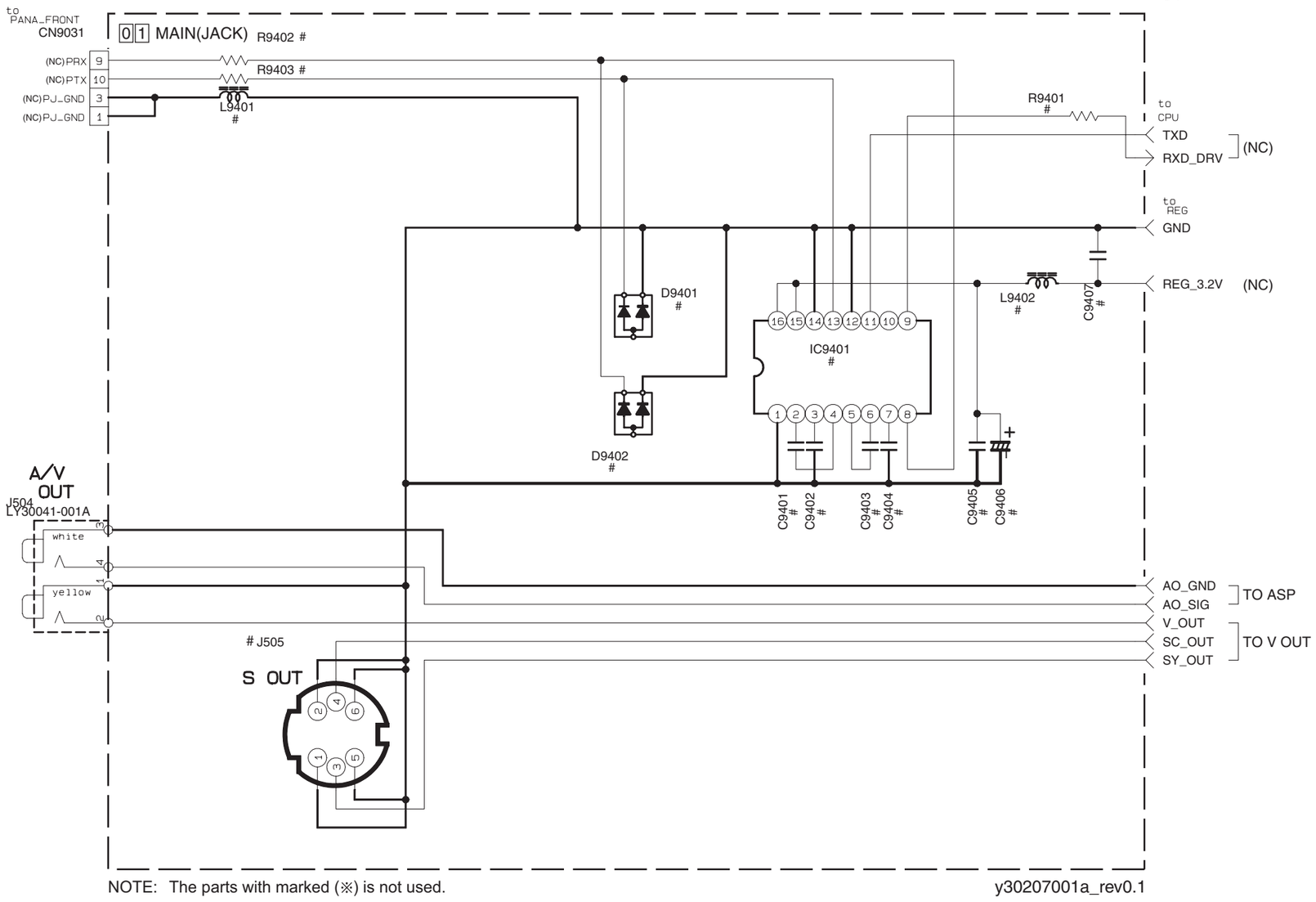
y30209001a_rev0.1

#: EXCHANGE PARTS LIST

	Q7302	Q7303	R7310	R7311	R7312	R7313	C7302
BWVF+LCD_MODEL	CPH3101-X	2SC4617/QR/-X	※	10k	1.5k	47k	10/6.3
BWVF_ONLY_MODEL	※	※	0	※	※	※	※

■ JACK SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTE: The parts with marked (※) is not used.

y30207001a_rev0.1

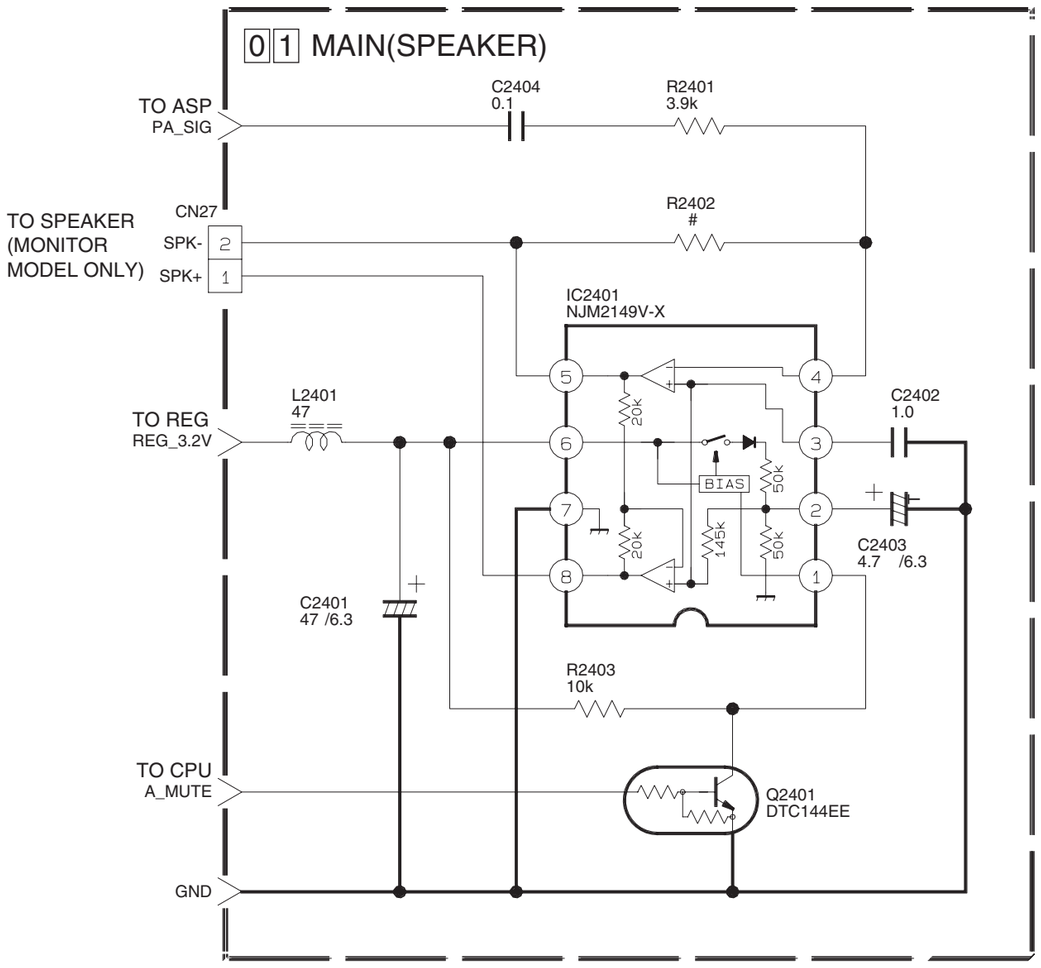
#: EXCHANGE PARTS LIST

	S model	NON S model
J505	GND0068-001 or GND0078-001 or GND0087-001	*

	PANA PC model	PANA NON PC model
IC9401	MAX3221CAE-X or ICL3221CA-X or MAX3221CDB-X	*
R9401	330	*
R9402	0	*
R9403	0	*
C9401	0.1	*
C9402	0.1	*
C9403	0.1	*
C9404	0.1	*
C9405	0.1	*
C9406	10/6.3	*
C9407	*	*
D9401	EMZ6.8N-X	*
D9402	EMZ6.8N-X	*
L9401	0	*
L9402	22µ	*

■ SPEAKER SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTE: The parts with marked (※) is not used.

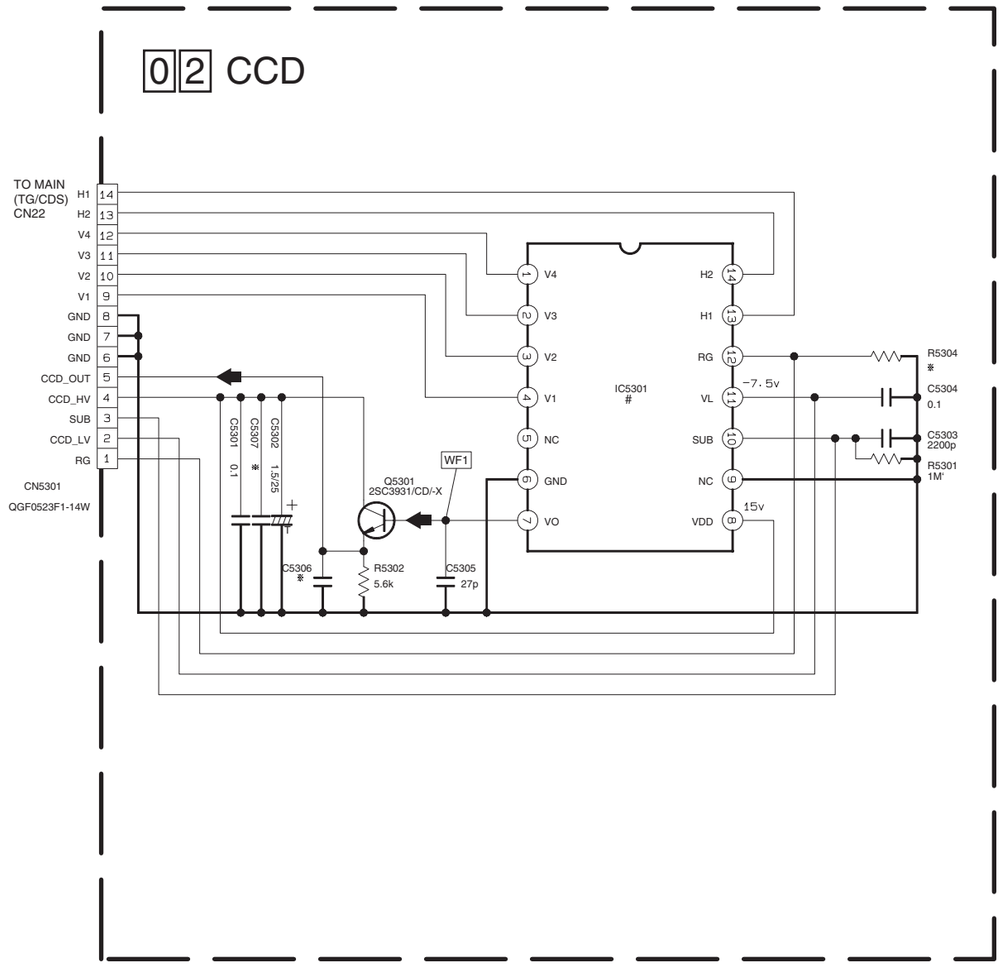
y40100001a_rev0.0

#: EXCHANGE PARTS LIST

	JVC	PANA
R2402	3.3k	2.2k

■ CCD SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*
● *IC5301 is incorporated in the CCD base assembly.*
When IC 5301 needs replacement, replace the CCD base assembly in whole because it cannot be replaced alone.



NOTES: 1. The parts with marked (※) is not used.
2. For CCD waveforms, please refer to page 2-23.

y40101001a_rev0.0

#: EXCHANGE PARTS LIST

	NTSC	PAL
IC5301	ICX296AKA-L	ICX297AKA-L

■ MONITOR SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

07 MONITOR

#: EXCHANGE PARTS LIST

	R7618	R7619
NTSC	※	NRSA63J-0R0X
PAL	NRSA63J-0R0X	※

	FPC
JVC MODEL	QAL0449-001
Pana MODEL	QAL0396-001

	R7614	R7615	R7617
JVC MODEL	※	NRSA63J-0R0X	NRSA63J-0R0X
Pana MODEL	NRSA63J-0R0X	※	※

	R7649	R7650	C7616	L7603	L7604	R7602	R7637	R7640	R7641	IC7603	C7627	R7642	C7623
Type_2.5	※	NRSA63J-103X	NDC31HJ-560X	※	NQL315K-220X	NRSA63D-752X	NRSA63J-223X	NRSA02J-182X	NRSA02J-331X	SN74AHC1G04K-X	NCB31EK-103X	※	NCB31EK-682X
Type_3.0	NRSA63J-333X	※	NDC31HJ-330X	NQL315K-220X	※	NRSA63D-432X	NRSA63J-682X	NRSA02J-122X	NRSA02J-821X	※	※	NRSA63J-0R0X	※
Type_3.5	※	NRSA63J-103X	NDC31HJ-330X	NQL315K-220X	※	NRSA63D-432X	NRSA63J-682X	NRSA02J-122X	NRSA02J-821X	※	※	NRSA63J-0R0X	※

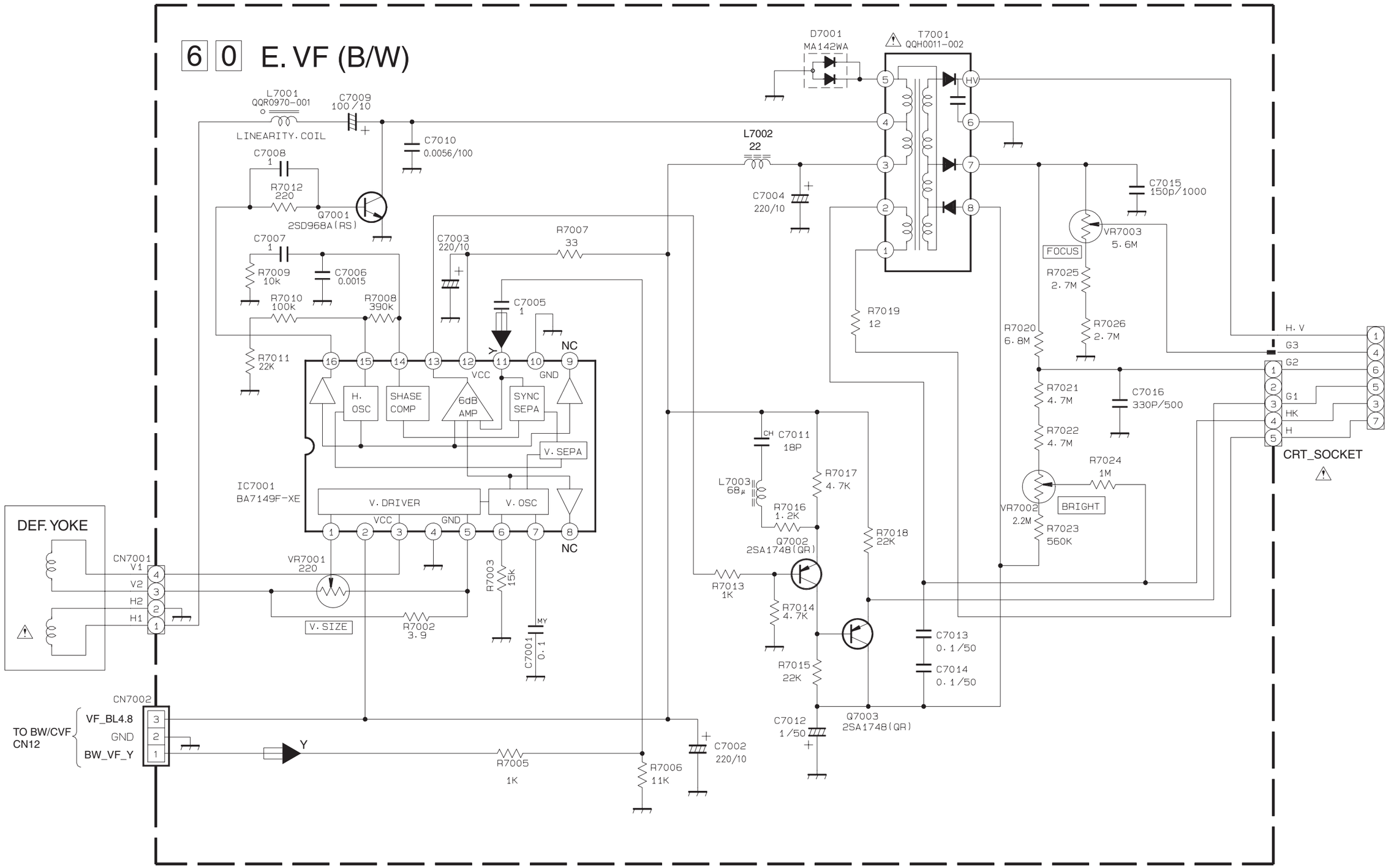
	R7607	C7630	R7643	R7644	R7645	R7646	Q7605	R7622	R7623	Q7607	R7648	R7620	
Type_2.5	NRSA63D-822X	※	※	※	NRSA63J-682X	NRSA63J-392X	DTA144EE-X	NRSA63J-103X	※	DTA144EE-X	NRSA63J-103X	※	
Type_3.0	NRSA63D-153X	NCB31EK-103X	NRSA63J-123X	NRSA63J-123X	NRSA63J-123X	NRSA63J-222X	※	※	NRSA63J-0R0X	DTA144EE-X	NRSA63J-103X	※	
Type_3.5	NRSA63D-153X	NCB31EK-103X	NRSA63J-123X	NRSA63J-123X	NRSA63J-123X	NRSA63J-222X	DTA144EE-X	NRSA63J-103X	※	※	※	NRSA63J-0R0X	

NOTES: The parts with marked (※) is not used.

y20227001a_rev0.0

■ E. VF SCHEMATIC DIAGRAM

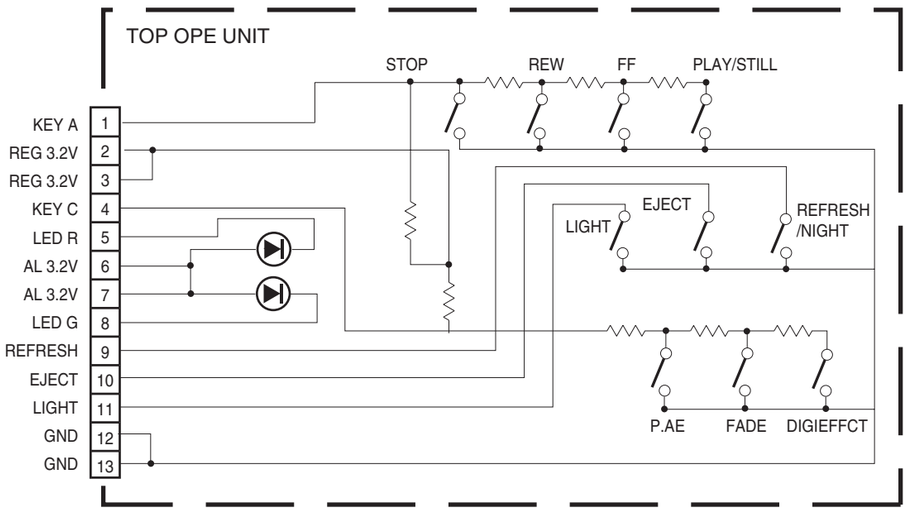
NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



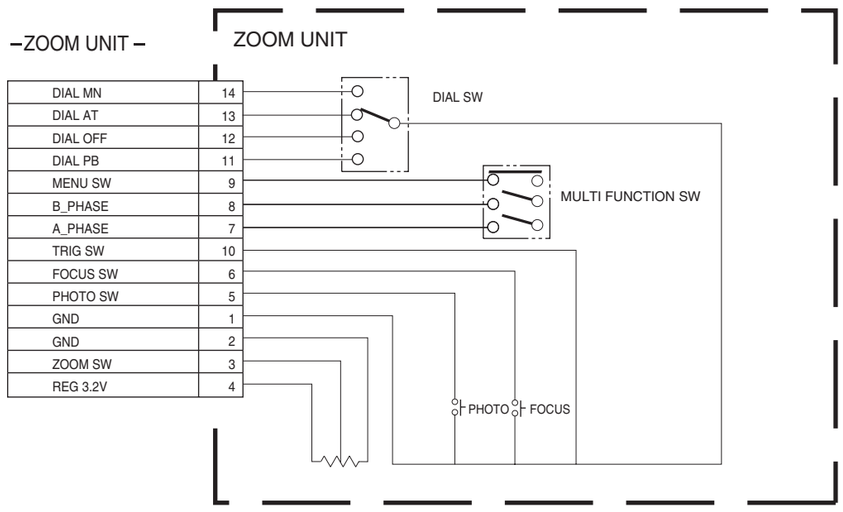
■ TOP OPE UNIT, ZOOM UNIT, REAR UNIT AND SENSOR SCHEMATIC DIAGRAMS

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".*
● *The schematic diagram is only for reference. Avoid replacing individual parts. Replace the entire unit only.*

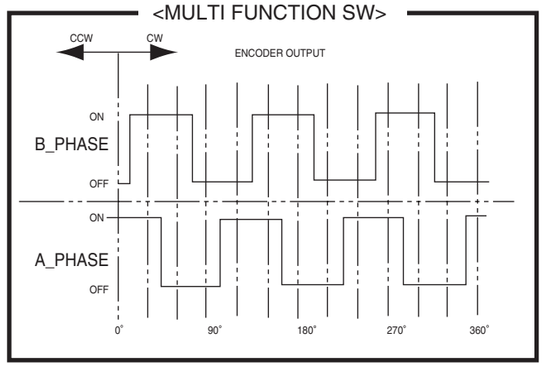
–TOP OPE UNIT–



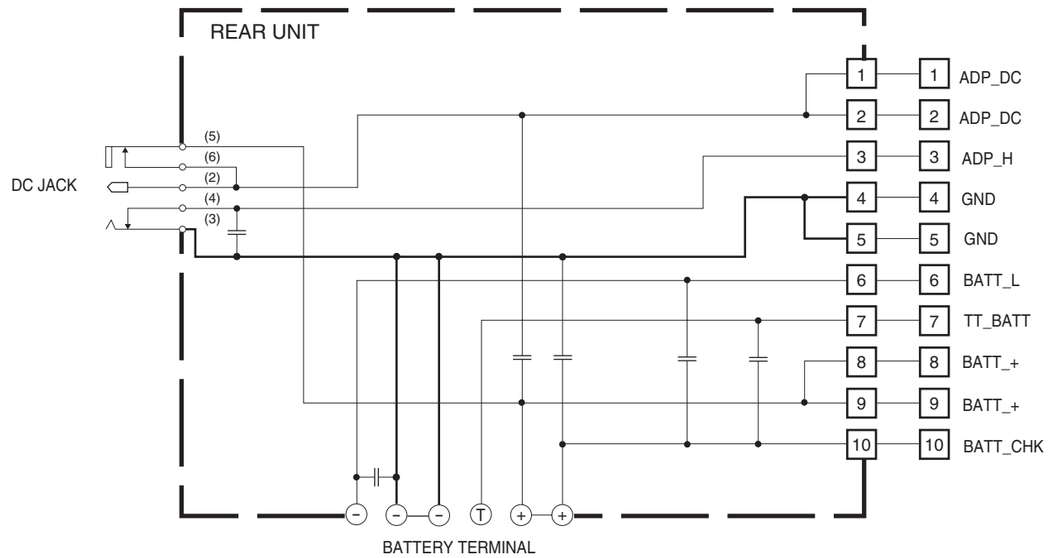
–ZOOM UNIT–



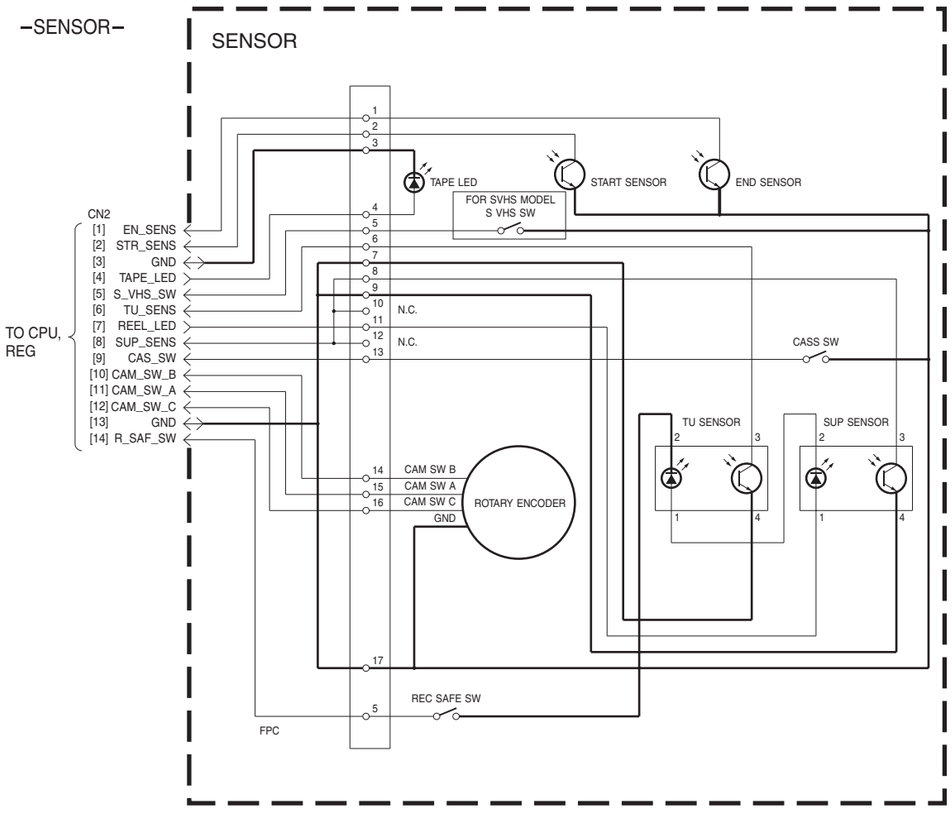
<MULTI FUNCTION SW>



–REAR UNIT–

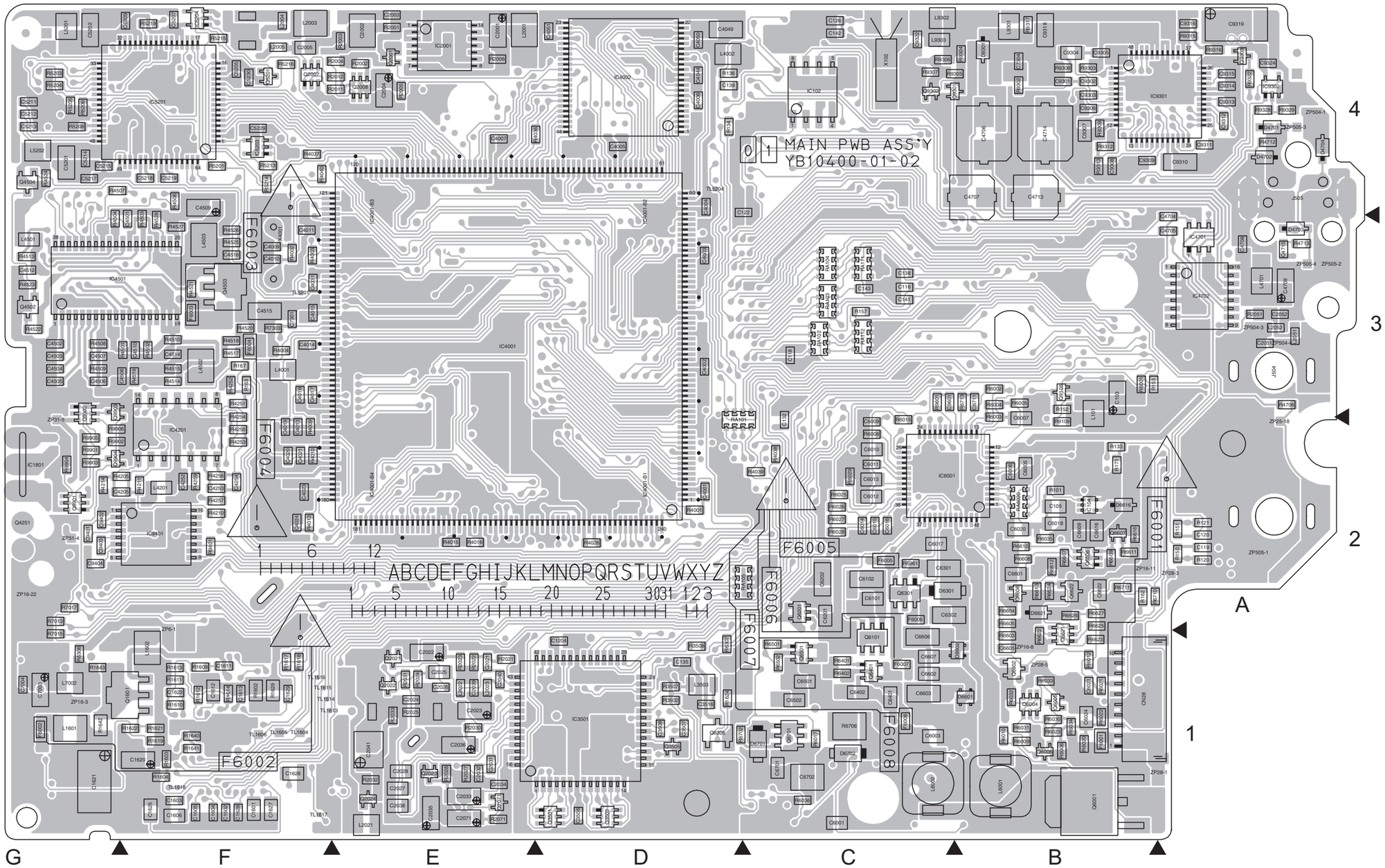


–SENSOR–



■ MAIN CIRCUIT BOARD

<01>MAIN YB10400-01-02 FOIL SIDE (B)



COMPONENT PARTS LOCATION GUIDE <MAIN> YB10400-01-02 (1/2)

REF.NO.	LOCATION
CAPACITOR	
C101	A C 2D
C102	A C 2D
C103	B C 3B
C104	A C 2D
C105	B C 2B
C106	A C 2D
C107	A C 4C
C108	A C 3A
C109	A C 2C
C110	A C 2C
C111	A C 4F
C112	A C 2D
C113	A C 4D
C114	A C 4D
C115	A C 2E
C116	B C 3C
C117	A C 3B
C118	B C 3C
C119	B C 2A
C120	B C 2A
C121	A C 4D
C122	B C 4C
C123	A C 3C
C124	A C 3C
C125	A C 4C
C126	B C 4C
C127	A C 4C
C128	A C 4C
C129	A C 4C
C130	A C 4C
C131	A C 2D
C132	B C 3C
C133	A C 3E
C134	A C 2E
C135	B C 1D
C136	A C 3B
C137	A C 2D
C138	B C 3C
C139	B C 4D
C140	A C 4F
C141	B C 3C
C142	B C 4C
C143	B C 3C
C1201	A C 1D
C1202	A C 1D
C1204	B C 1D
C1205	A C 1D
C1206	A C 1E
C1601	B C 1F
C1602	B C 1F
C1603	B C 1F
C1604	B C 1F
C1605	B C 1F
C1606	B C 1F
C1607	A C 1G
C1608	A C 1F
C1609	A C 1G
C1610	A C 1G
C1611	B C 1F
C1612	B C 1F
C1613	B C 1F
C1614	A C 1F
C1615	A C 1F
C1616	A C 1F
C1617	A C 1F
C1618	A C 1F
C1619	A C 1F
C1620	B C 1F
C1621	B C 1G
C1622	B C 1F
C1623	A C 1F
C1624	A C 4E
C1625	B C 1F
C1626	B C 1F
C1627	B C 1F
C1628	B C 1F
C1629	B C 1F
C1630	A C 4E
C2001	B C 4E
C2002	B C 4E
C2003	B C 4E
C2004	B C 4E
C2005	B C 4F
C2021	B C 1E
C2022	B C 1E
C2023	B C 1E
C2024	B C 1E
C2025	B C 1E
C2026	B C 1E
C2027	B C 1E
C2028	B C 1E
C2029	A C 1E
C2031	B C 1E
C2032	B C 1E
C2033	B C 1E
C2034	B C 1E
C2035	B C 1E
C2036	B C 1E
C2038	B C 1E
C2039	B C 1E
C2040	B C 1E
C2041	B C 1E
C2051	B C 3A
C2052	B C 3A
C2071	B C 1E
C2072	A C 1E
C2401	A C 3E
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CN6	A C 1F
CN7	A C 4F
CN8	A C 1E
CN12	A C 4B
CN13	A C 4D
CN15	A C 3G
CN16	A C 1G
CN18	A C 3E
CN22	A C 4F
CN25	A C 1C
CN27	A C 2E
CN28	B C 1B
CN9012	A C 4B
CN9013	A C 4D
CN9031	A C 2G
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D102	A C 3A
D103	A C 2A
D104	A C 2A
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D4702	B C 4A
D4703	B C 3A
D4704	B C 4A
D5201	A C 4F
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D6602	B C 1B
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D6621	B C 2B
D6701	B C 1C
D6702	B C 1C
D9301	B C 4B
D9401	A C 2F
D9402	A C 2F
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F6006	B C 2C
F6007	B C 1C
F6008	B C 1C
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IC105	A C 2D
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IC1602	A C 1D
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IC3501	B C 1D
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IC9302	B C 4A
IC9401	B C 2F
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L9303	B C 4C
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L9402	A C 2G
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COMPONENT PARTS LOCATION GUIDE <MAIN> YB10400-01-02 (2/2)

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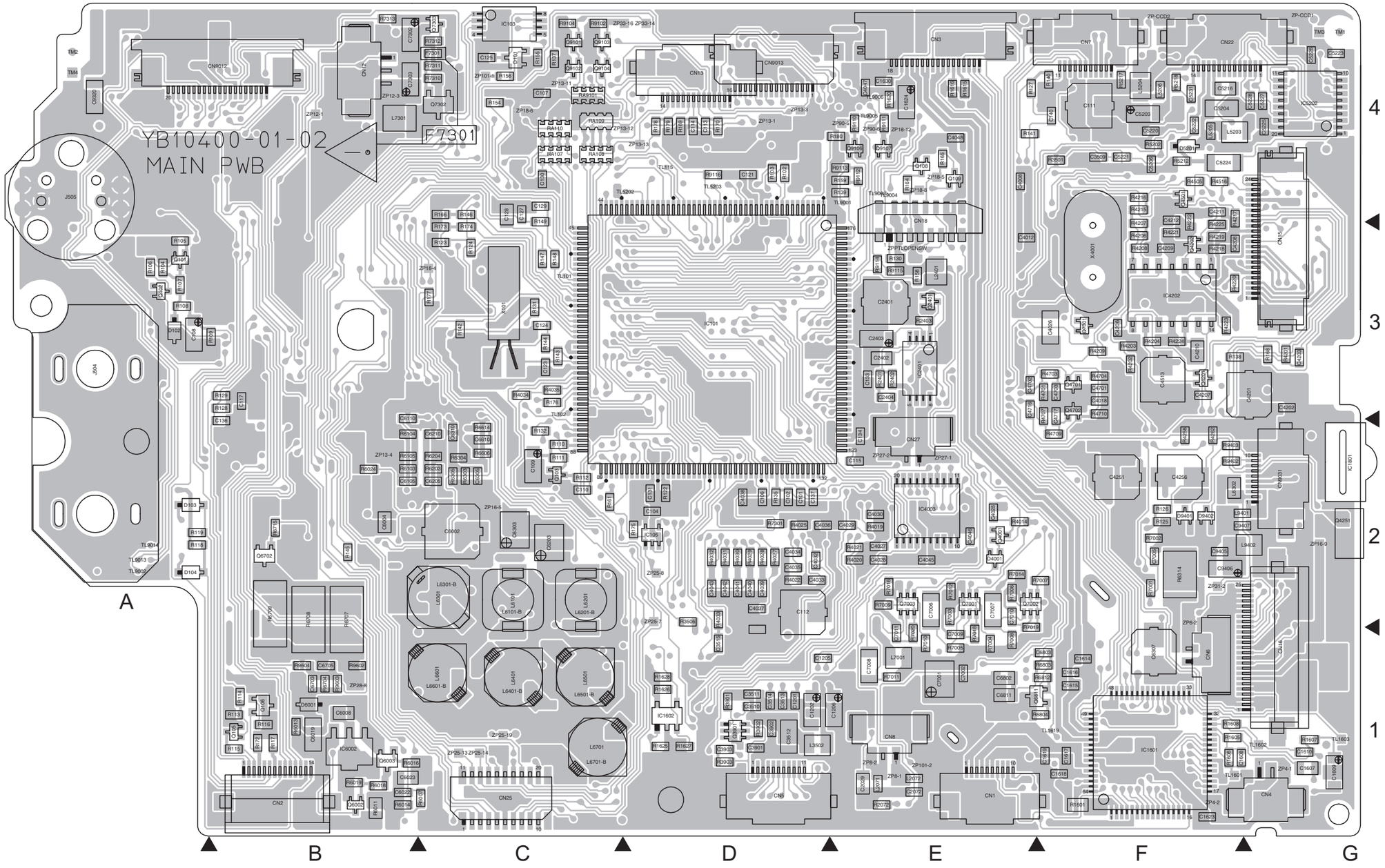
R6025	B C 2C	R9102	A C 4C	TL9005	A C 4E
R6026	B C 2C	R9104	A C 4C	TL9006	A C 4E
R6027	B C 2C	R9109	B C 3B	TL9013	A C 2A
R6028	B C 2C	R9110	A C 4E	TL9014	A C 2A
R6029	B C 2C	R9111	A C 4E	TM1	A C 4G
R6030	B C 1B	R9112	A C 4E	TM2	A C 4A
R6031	B C 1B	R9113	A C 4E	TM3	A C 4G
R6032	B C 1B	R9114	A C 3E	TM4	A C 4A
R6033	B C 1B	R9115	A C 3E	X101	A C 3C
R6034	B C 1B	R9116	A C 4D	X102	B C 4C
R6035	B C 2B	R9302	B C 4B	X4001	A D 3F
R6036	B C 1C	R9303	B C 4B	ZP101-1	A C 4C
R6103	A C 2B	R9304	B C 4B	ZP101-2	A C 1E
R6104	A C 2B	R9305	B C 4B	ZP12-1	A C 4B
R6105	A C 2B	R9306	B C 4C	ZP12-3	A C 4B
R6203	A C 2C	R9307	B C 4C	ZP13-1	A C 4D
R6204	A C 2C	R9308	B C 4B	ZP13-11	A C 4C
R6303	A C 2C	R9309	B C 4B	ZP13-12	A C 4C
R6304	A C 2C	R9312	B C 4B	ZP13-13	A C 4D
R6305	A C 2C	R9313	B C 4B	ZP13-3	A C 4D
R6306	B C 1G	R9315	B C 4A	ZP13-4	A C 2B
R6307	B C 1D	R9316	B C 4A	ZP16-11	B C 2B
R6314	A C 2F	R9317	B C 4B	ZP16-22	B C 2G
R6401	B C 1C	R9322	B C 4A	ZP16-3	B C 1G
R6402	B C 1C	R9328	B C 4A	ZP16-5	A C 2C
R6501	B C 1C	R9329	B C 4A	ZP16-8	B C 1B
R6502	B C 1C	R9401	B C 2F	ZP16-9	A C 2G
R6603	B C 1B	R9402	A C 2F	ZP18-12	A C 4E
R6604	B C 2B	R9403	A C 2F	ZP18-4	A C 3C
R6605	B C 2B	R9601	B C 3C	ZP18-5	A C 4E
R6606	A C 2C	R9602	A C 1B	ZP18-6	A C 4C
R6607	B C 2B	R9603	A C 1B	ZP18-8	A C 4E
R6608	B C 2B	R9604	A C 1B	ZP25-13	A C 1C
R6609	B C 2B	R9901	B C 2G	ZP25-14	A C 1C
R6610	B C 2B	R9902	B C 2G	ZP25-18	B C 3A
R6611	B C 2B	R9903	B C 2G	ZP25-19	A C 1C
R6612	B C 2B	R9904	B C 2G	ZP25-7	A C 2D
R6613	B C 2B	R9905	B C 2G	ZP25-8	A C 2D
R6614	A C 2C	R9906	B C 2G	ZP27-1	A C 2E
R6616	B C 2B			ZP27-2	A C 2E
R6622	B C 1B	**OTHER**		ZP28-1	B C 1A
R6623	B C 1B	J101	A D 1E	ZP28-3	B C 2A
R6624	B C 2B	J504	A D 3A	ZP28-5	B C 1B
R6625	B C 2B	J505	A D 4A	ZP28-8	A C 1B
R6626	B C 2B	JP2001	B C 4F	ZP31-2	A C 2F
R6627	B C 2B	JP2002	B C 4F	ZP31-4	B C 2G
R6702	B C 1D	JP2003	B C 1E	ZP31-5	B C 3G
R6704	A C 1B	JP2004	B C 1E	ZP33-14	A C 4D
R6706	B C 1C	JP3501	A C 1D	ZP33-16	A C 4C
R6707	A C 2B	RA101	B C 3D	ZP4-1	A C 1G
R6708	A C 2B	RA102	B C 3C	ZP4-2	A C 1F
R6709	A C 2B	RA103	B C 3C	ZP504-1	B C 4A
R6710	B C 2B	RA104	B C 3C	ZP504-3	B C 3A
R6711	B C 2B	RA105	B C 2C	ZP504-4	B C 3A
R6713	B C 3B	RA107	A C 4C	ZP505-1	B C 2A
R6715	A C 2B	RA108	A C 4C	ZP505-2	B C 3A
R6803	A C 1F	RA109	A C 4C	ZP505-3	B C 4A
R6804	A C 1F	RA110	A C 4C	ZP505-4	B C 3A
R6812	A C 1F	RA111	B C 3C	ZP6-1	B C 2F
R6961	B C 2C	RA112	B C 3C	ZP6-2	A C 2F
R7001	A C 2F	RA6020	B C 2B	ZP8-1	A C 1E
R7002	A C 2F	RA9101	A C 4C	ZP8-2	A C 1E
R7003	A C 2E	TL101	A C 3C	ZP90-5	A C 4E
R7004	A C 1E	TL102	A C 3C	ZP90-6	A C 4E
R7005	A C 1E	TL115	A C 4D	ZP-CCD1	A C 4G
R7006	A C 2E	TL1601	A C 1F	ZP-CCD2	A C 4F
R7007	A C 2F	TL1602	A C 1G	ZP-CCDG	B C 1A
R7008	A C 1E	TL1603	A C 1G	ZPPCN15	A C 3G
R7009	A C 2E	TL1604	B C 1F	ZPPTLOP	A C 3E
R7010	A C 1E	TL1605	B C 1F		
R7011	A C 1E	TL1606	B C 1F		
R7012	A C 2E	TL1613	B C 1E		
R7013	B C 2G	TL1614	B C 1F		
R7014	A C 2E	TL1615	B C 1F		
R7015	B C 1G	TL1616	B C 1F		
R7016	A C 2E	TL1617	B C 1F		
R7017	B C 2G	TL1618	B C 1F		
R7018	A C 1E	TL1619	A C 1F		
R7019	A C 2E	TL5201	B C 3F		
R7020	A C 1E	TL5202	A C 4D		
R7301	A C 2D	TL5203	A C 4D		
R7303	B C 3F	TL5204	B C 4D		
R7310	A C 4C	TL9001	A C 4E		
R7311	A C 4C	TL9002	A C 2A		
R7312	A C 4C	TL9003	A C 4E		

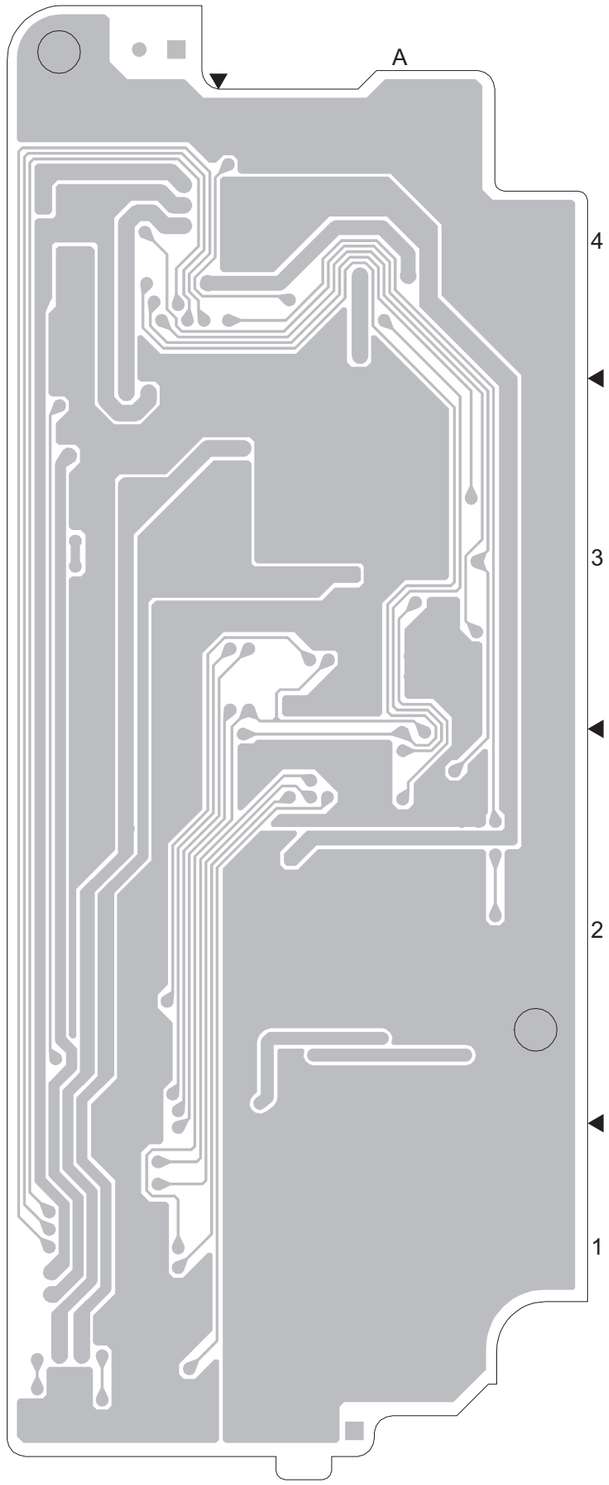
■ MAIN CIRCUIT BOARD

<01>MAIN YB10400-01-02 COMPONENT SIDE (A)



■ MONITOR CIRCUIT BOARD

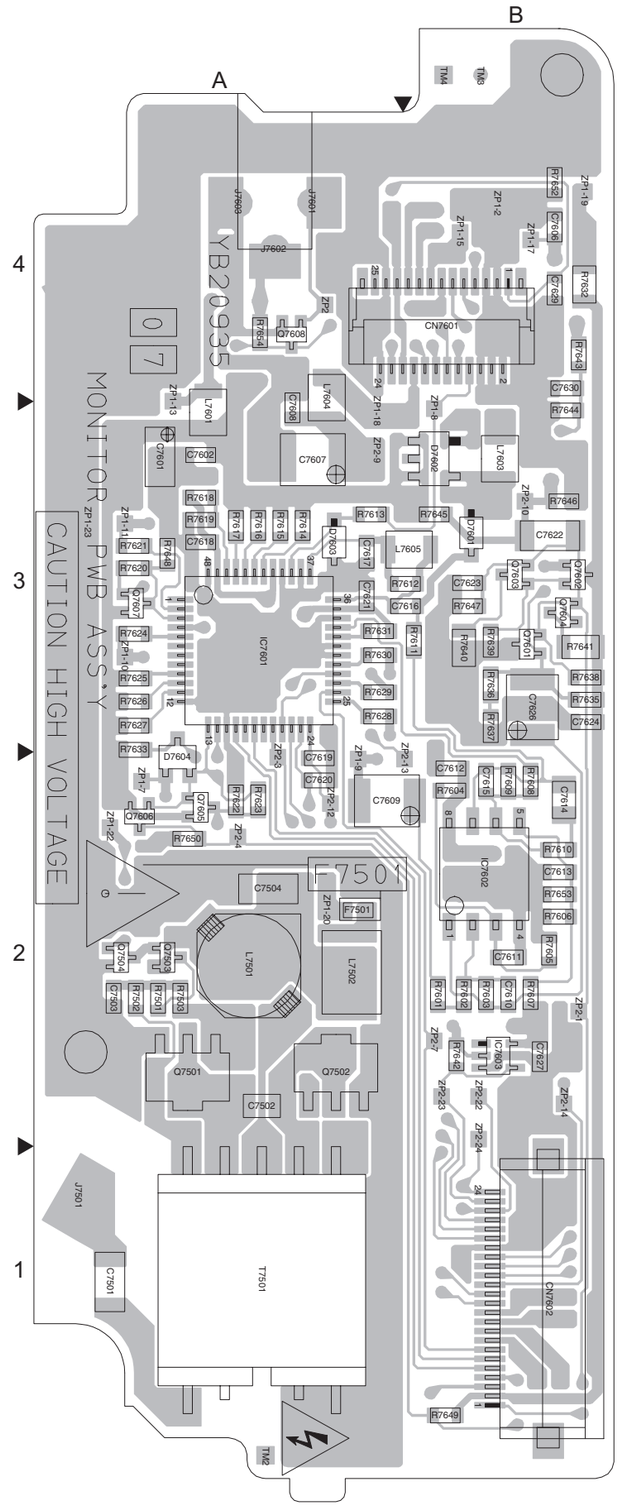
<07>MONITOR YB20935 FOIL SIDE (B)



COMPONENT PARTS LOCATION GUIDE
<MONITOR> YB20935

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR				R7639	A C 3B
C7501	A C 1A	**TRANSISTOR**		R7640	A C 3B
C7502	A C 2A	Q7501	A C 2A	R7641	A C 3B
C7503	A C 2A	Q7502	A C 2A	R7642	A C 2B
C7504	A C 2A	Q7503	A C 2A	R7643	A C 4B
C7601	A C 3A	Q7504	A C 2A	R7644	A C 3B
C7602	A C 3A	Q7601	A C 3B	R7645	A C 3B
C7606	A C 4B	Q7602	A C 3B	R7646	A C 3B
C7607	A C 3A	Q7603	A C 3B	R7647	A C 3B
C7608	A C 3A	Q7604	A C 3B	R7648	A C 3A
C7609	A C 2A	Q7605	A C 2A	R7649	A C 1B
C7610	A C 2B	Q7606	A C 2A	R7650	A C 2A
C7611	A C 2B	Q7607	A C 3A	R7652	A C 4B
C7612	A C 2B	Q7608	A C 4A	R7653	A C 2B
C7613	A C 2B			R7654	A C 4A
C7614	A C 2B	**RESISTOR**			
C7615	A C 2B	R7501	A C 2A	**OTHER**	
C7616	A C 3A	R7502	A C 2A	J7501	A C 1A
C7617	A C 3A	R7503	A C 2A	J7502	A C 4A
C7618	A C 3A	R7601	A C 2B	J7601	A C 4A
C7619	A C 3A	R7602	A C 2B	J7602	A C 4A
C7620	A C 2A	R7603	A C 2B	J7603	A C 4A
C7621	A C 3A	R7604	A C 2B	PC06	A C 4B
C7622	A C 3B	R7605	A C 2B	T7501	A C 1A
C7623	A C 3B	R7606	A C 2B	TM2	A C 1A
C7624	A C 3B	R7607	A C 2B	TM3	A C 4B
C7626	A C 3B	R7608	A C 2B	TM4	A C 4B
C7627	A C 2B	R7609	A C 2B	ZP1-10	A C 3A
C7629	A C 4B	R7610	A C 2B	ZP1-11	A C 3A
C7630	A C 4B	R7611	A C 3B	ZP1-13	A C 3A
		R7612	A C 3A	ZP1-15	A C 4B
CONNECTOR		R7613	A C 3A	ZP1-17	A C 4B
CN7601	A C 4B	R7614	A C 3A	ZP1-18	A C 3A
CN7602	A C 1B	R7615	A C 3A	ZP1-19	A C 4B
		R7616	A C 3A	ZP1-2	A C 4B
DIODE		R7617	A C 3A	ZP1-20	A C 2A
D7601	A C 3B	R7618	A C 3A	ZP1-22	A C 2A
D7602	A C 3B	R7619	A C 3A	ZP1-23	A C 3A
D7603	A C 3A	R7620	A C 3A	ZP1-7	A C 2A
D7604	A C 3A	R7621	A C 3A	ZP1-8	A C 3B
		R7622	A C 2A	ZP1-9	A C 3A
FUSE		R7623	A C 2A	ZP2	A C 4A
F7501	A C 2A	R7624	A C 3A	ZP2-1	A C 2B
		R7625	A C 3A	ZP2-10	A C 3B
IC		R7626	A C 3A	ZP2-12	A C 2A
IC7601	A C 3A	R7627	A C 3A	ZP2-13	A C 3A
IC7602	A C 2B	R7628	A C 3A	ZP2-14	A C 2B
IC7603	A C 2B	R7629	A C 3A	ZP2-22	A C 2B
		R7630	A C 3A	ZP2-23	A C 2B
COIL		R7631	A C 3A	ZP2-24	A C 1B
L7501	A C 2A	R7632	A C 4B	ZP2-3	A C 3A
L7502	A C 2A	R7633	A C 3A	ZP2-4	A C 2A
L7601	A C 3A	R7635	A C 3B	ZP2-7	A C 2B
L7603	A C 3B	R7636	A C 3B	ZP2-9	A C 3A
L7604	A C 3A	R7637	A C 3B		
L7605	A C 3B	R7638	A C 3B		

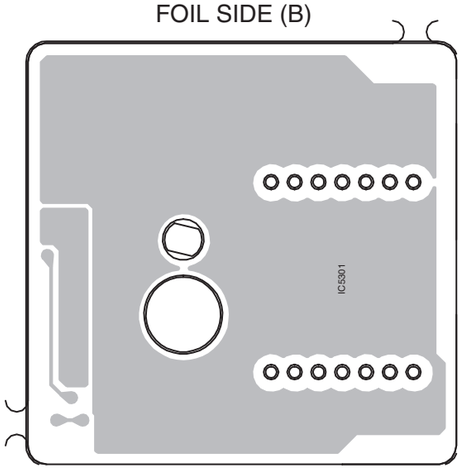
<07>MONITOR YB20935 COMPONENT SIDE (A)



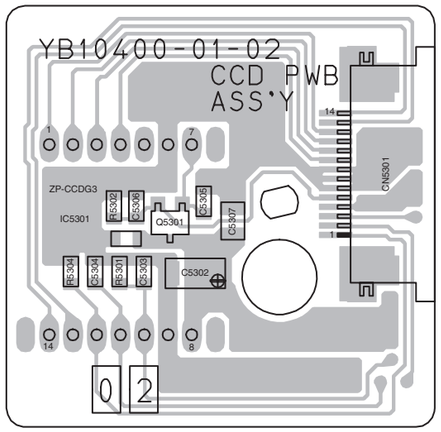
■ CCD CIRCUIT BOARD

<02>CCD YB10400-01-02

FOIL SIDE (B)

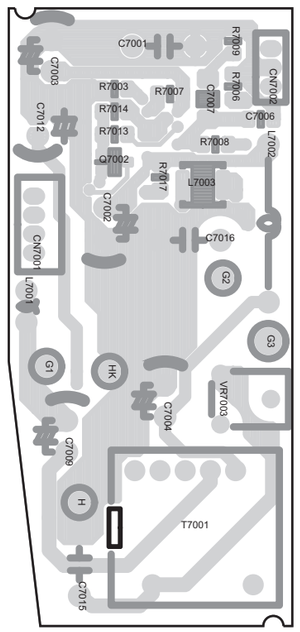


COMPONENT SIDE (A)

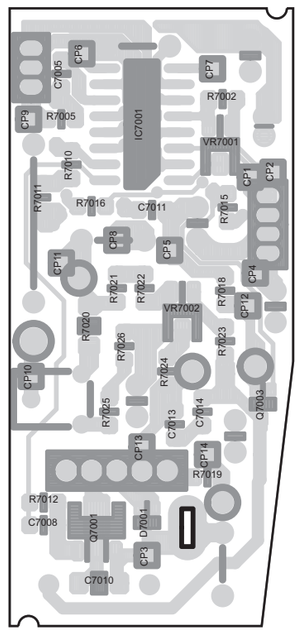


■ E.VF CIRCUIT BOARD <60>E.VF

FOIL SIDE (B)



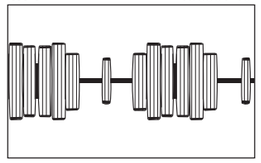
COMPONENT SIDE (A)



■ WAVEFORMS

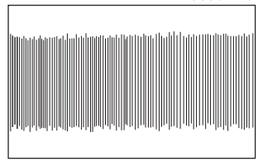
— ASP —

WF1 IC3501-19



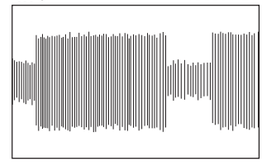
REC 0.11 Vp-p
2 mV/10 µsec/DIV

WF2 IC3501-20



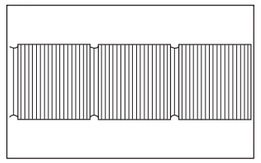
REC 0.35 Vp-p
10 mV/10 µsec/DIV

WF3 IC3501-21



PB 24 mVp-p
1 mV/5 msec/DIV

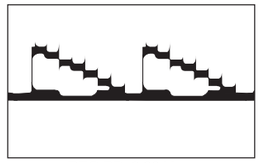
WF4 IC3501-25



PB 0.26 Vp-p
10 mV/5 msec/DIV

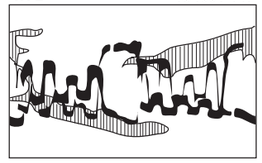
— DSP —

WF1 IC4001-146



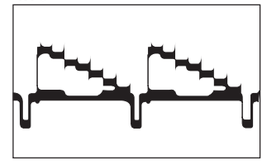
REC/PB 0.29 Vp-p
10 mV/20 µsec/DIV

WF2 IC4001-147



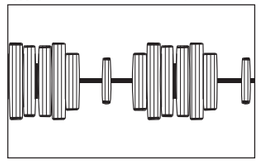
REC/PB 0.1 Vp-p
PB 0.3 Vp-p
5 mV/10 µsec/DIV

WF3 IC4001-160



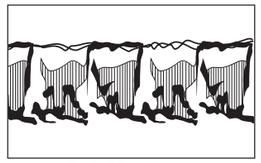
REC/PB 0.58 Vp-p
10 mV/20 µsec/DIV

WF4 IC4001-161



REC 0.36Vp-p
PB 0.36 Vp-p
5 mV/10 µsec/DIV

WF5 IC4001-168



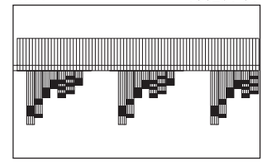
REC /PB 0.38 Vp-p
5 mV/10 µsec/DIV

WF6 IC4001-169

REC 50 mVp-p
PB 0.2 Vp-p
5 mV/10µsec/DIV

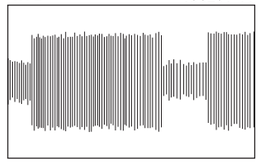
— TG/CDS —

WF1 IC5201-51



REC 0.26 Vp-p
5 mV/10 µsec/DIV

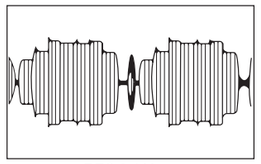
WF2 IC5201-44



PB 24 mVp-p
1 mV/5 msec/DIV

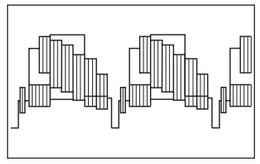
— VOUT —

WF1 IC4702-9



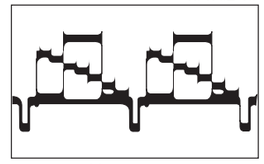
REC 0.4 Vp-p
PB 0.44 Vp-p
10 mV/10 µsec/DIV

WF2 IC4702-12



REC/PB 0.7 Vp-p
10 mV/10 µsec/DIV

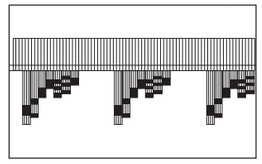
WF3 IC4702-15



REC/PB 0.58 Vp-p
10 mV/10 µsec/DIV

— CCD —

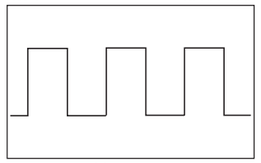
WF1 Q5301-B



EE 0.28 Vp-p
10 mV/10 µsec/DIV

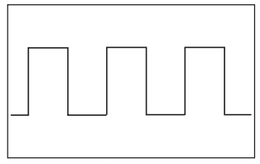
— CPU —

WF1 IC101-109



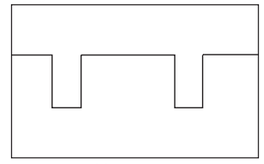
REC/PB 0.9 Vp-p
20 mV/0.5 msec/DIV

WF2 IC101-111



REC/PB 0.9 Vp-p
20 mV/0.1 msec/DIV

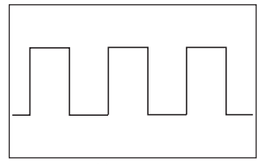
WF3 IC101-113



REC/PB 0.95 Vp-p
50 mV/5 msec/DIV

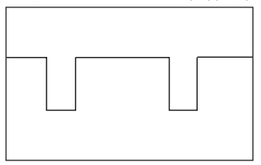
— M.MDA —

WF1 IC1601-25



REC/PB 0.9 Vp-p
20 mV/0.1 msec/DIV

WF2 IC1601-26



REC/PB 0.94 Vp-p
50 mV/5 msec/DIV

■ VOLTAGE CHARTS

<CPU>

MODE PIN NO.	REC	PLAY
IC101		
1	3.2	3.2
2	3.2	3.2
3	0	0
4	3.2	3.2
5	0	0
6	0	0
7	3.2	0
8	0	1.3
9	0.3	0.6
10	3.2	3.2
11	0	0
12	1.3	1.3
13	3.2	3.2
14	0	0
15	0.3	0.3
16	2.0	1.6
17	0	0
18	3.2	3.2
19	0	0
20	0	0
21	3.2	0
22	1.6	1.6
23	0	0
24	3.0	2.9
25	3.1	3.2
26	1.5	0
27	0	0
28	0	0
29	0	0
30	3.2	3.2
31	2.9	2.7
32	3.2	3.3
33	3.2	3.2
34	3.1	3.2
35	3.1	3.2
36	0.3	0.1
37	0	0
38	3.2	3.2
39	3.2	3.2
40	0	0
41	0	0
42	3.2	3.2
43	3.2	0
44	0	0
45	0	0
46	3.0	3.0
47	3.2	3.1
48	0	0
49	3.0	0
50	3.0	3.1
51	0	3.0
52	3.0	3.0
53	2.9	-
54	-	-
55	3.2	3.2
56	0	0
57	1.3	1.3
58	1.7	1.7
59	2.0	0
60	0	0
61	2.9	2.9
62	2.8	1.8
63	3.2	3.2
64	3.0	3.0
65	0	0
66	3.3	3.3
67	3.2	3.2
68	0	0
69	3.2	3.2
70	1.5	1.5
71	0	-
72	-	0
73	1.6	1.6
74	0	0
75	0	0
76	2.9	2.9
77	0	0
78	0	0.1
79	0	0
80	0	0
81	3.2	3.2
82	0	0
83	2.0	0
84	0	0
85	3.2	0
86	3.2	0
87	3.2	0
88	0	0
89	0.2	0.2
90	3.2	3.2
91	3.3	3.3
92	3.0	3.0
93	3.1	3.1
94	3.2	3.2
95	3.0	3.0
96	0	0
97	0	0
98	0.2	0.2
99	3.2	3.2
100	0	0
101	0	0
102	3.2	3.2
103	1.6	1.6
104	0.6	-
105	0	0
106	0	0
107	3.1	3.2
108	3.2	3.2
109	1.7	1.7
110	0	0
111	1.6	1.7
112	1.8	0
113	2.9	2.9
114	3.0	3.1
115	3.0	3.1
116	-	-
117	0	3.0
118	3.2	3.2
119	3.2	3.2
120	3.2	0
121	2.9	2.9
122	0	0
123	0	0
124	0	0
125	2.1	0.6
126	3.2	3.2
127	1.3	1.3
128	3.2	3.2
129	0.7	0.5
130	1.7	1.7
131	3.2	3.2
132	0	0
133	3.2	3.2
134	0	0
135	3.2	3.2
136	3.2	3.2
137	0	0
138	0	0
139	0	0
140	3.2	3.2
141	3.2	3.2
142	3.2	3.2
143	3.1	3.2
144	3.2	3.2
145	1.1	1.2
146	1.2	1.1
147	1.2	1.2
148	1.1	1.1
149	1.1	1.1
150	1.1	1.1
151	1.1	1.1
152	1.1	1.1
153	3.2	3.2
154	0	0
155	1.2	1.1
156	1.2	1.1
157	1.2	1.1
158	1.1	1.1
159	1.2	1.1
160	1.1	1.1
161	1.0	1.1
162	1.1	1.1
163	0	0
164	3.2	3.2
165	0	0
166	3.2	0
167	0	0
168	0	0
169	1.6	1.6
170	3.1	3.1
171	0	0
172	0	0
173	0	0
174	0	3.1
175	0	0
176	0	0
IC102		
1	3.2	3.2
2	0	0
3	3.2	3.2
4	0	0
5	0	0
6	3.2	3.2
7	3.3	3.3
8	3.2	3.2
IC103		
1	0	0
2	3.2	3.2
3	0	0
4	0	0
5	0	0
6	0.5	0.5
7	0.6	0.6
8	3.1	3.1
IC104		
1	3.3	3.3
2	0	0
3	0	0
4	0	0
5	3.2	3.2
IC105	-	-
IC1801	-	-
Q101		
E	11.0	11.1
C	11.0	11.0
B	10.3	10.3
Q102		
E	0	0
C	0	0
B	3.2	3.2
Q103		
E	0	0
C	0	4.8
B	0.6	0
Q105		
E	0	0
C	4.3	4.3
B	0	0
Q108		
E	0	0
C	0	0
B	3.2	3.2
Q109		
E	0	0
C	2.5	2.2
B	0	0

<M.MDA>

MODE PIN NO.	REC	PLAY
IC1601		
1	0	0
2	0	0
3	1.5	1.5
4	2.6	2.6
5	3.1	3.1
6	1.7	1.8
7	1.6	1.6
8	0	0
9	0	0
10	1.2	1.2
11	0.4	0.3
12	0.3	0.4
13	1.7	1.7
14	0	0
15	1.2	1.2
16	8.8	8.7
17	11.0	11.1
18	10.9	10.9
19	1.6	1.6
20	0	0
21	1.8	1.8
22	3.2	3.2
23	0	0
24	0.4	0.4
25	1.6	1.7
26	2.9	3.0
27	1.7	1.7
28	1.2	1.2
29	1.2	1.1
30	1.2	1.2
31	0.2	0
32	1.2	1.2
33	1.2	1.2
34	1.2	1.2
35	1.2	1.2
36	3.0	3.0
37	0.0	0
38	1.7	1.7
39	0.0	1.6
40	1.3	1.3
41	0.0	3.2
42	2.5	2.5
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
57	0	0
58	0	0
59	0	1.6
60	1.4	1.4
61	1.5	1.6
62	1.4	1.4
63	1.5	1.5
64	1.4	1.4
IC1602		
1	0.5	0.5
2	0	0
3	2.2	2.2
4	3.2	3.2
5	3.2	3.2
Q1601		
E	1.7	1.8
C	4.7	4.8
B	2.4	2.4

<ASP>

MODE PIN NO.	REC	PLAY
IC2001		
1	1.5	3.2
2	1.6	0
3	1.5	3.2
4	1.5	3.2
5	1.5	3.2
6	1.5	0
7	0	0
8	1.5	0
9	1.5	3.2
10	1.5	0
11	1.5	3.2
12	1.5	0
13	1.5	3.2
14	3.1	3.2
IC3501		
1	2.2	2.2
2	2.2	2.2
3	2.2	2.2
4	2.2	2.2
5	2.2	2.3
6	2.2	2.2
7	4.7	2.2
8	2.2	4.7
9	2.2	2.2
10	2.2	2.2
11	2.1	2.2
12	2.2	2.3
13	2.2	2.2
14	0	0
15	3.2	0
16	2.8	0.7
17	3.9	4.8
18	0	0
19	2.8	0
20	2.8	0.1
21	0.9	2.2
22	0	2.1
23	2.1	2.3
24	4.7	4.7
25	2.4	2.4
26	0	3.0
27	2.6	2.6
28	2.9	2.9
29	0	0
30	1.5	1.5
31	3.2	3.2
32	0.3	0.6
33	3.2	3.2
34	1.9	1.7
35	1.9	0
36	0	0
37	2.5	2.3
38	3.0	3.1
39	4.7	4.7
40	2.4	2.1
41	2.1	2.1
42	2.8	2.8
43	2.7	2.5
44	2.7	2.5
45	2.4	2.4
46	2.4	2.5
47	0.4	0.5
48	2.5	2.5
49	2.4	2.5
50	0	0
51	2.4	2.5
52	2.4	2.5
53	2.4	2.5
54	4.7	4.7
55	2.5	2.5
56	0	1.4
Q2001		
E	3.1	3.2
C	1.5	3.2
B	3.2	0
Q2007		
1(E)	-9.0	0
2(B)	-15.2	0.7
3(C)	0	0
4(E)	-8.7	0
5(B)	-15.2	0.7
6(C)	0	0
Q2008		
1(E)	3.1	1.8
2(B)	3.2	1.2
3(C)	3.2	1.2
4(E)	3.1	1.8
5(B)	3.2	1.2
6(C)	-15.3	0.8
Q2021		
E	0	0
C	0.3	0
B	0	0
Q2022		
E	0	0
C	0	0
B	0	0
Q2023		
E	0	0
C	0	0
B	0	0
Q2071		
E	4.4	4.4
C	4.7	4.7
B	4.7	4.7
Q3501		
1(E)	2.2	2.2
2(B)	2.4	2.3
3(C)	2.2	2.2
4(E)	2.2	2.2
5(B)	2.3	2.2
6(C)	2.2	2.2
Q3502		
1(E)	2.2	2.2
2(B)	2.3	2.3
3(C)	2.2	2.1
4(E)	2.1	2.1
5(B)	2.2	2.3
6(C)	2.2	2.2
Q3505		
E	0	0
C	2.8	0
B	0	2.7
Q3901		
1(E)	4.6	4.7
2(B)	3.9	4.8
3(C)	3.9	0
4(E)	4.5	4.7
5(B)	3.9	4.7
6(C)	0	0

<SPEAKER>

MODE PIN NO.	REC	PLAY
IC2401		
1	2.9	2.9
2	1.2	1.3
3	1.2	1.3
4	1.2	1.3
5	1.3	1.3
6	3.2	3.2
7	0	0
8	1.2	1.3
Q2401		
E	0	0
C	2.9	2.9
B	0	0

<DSP>

MODE PIN NO.	REC	PLAY
IC4001		
1	3.2	3.2
2	0.5	0.8
3	0	0
4	1.6	1.6
5	3.2	3.2
6	3.2	3.2
7	0.7	0.8
8	0.7	0.8
9	0.7	0.9
10	3.1	3.1
11	0.6	0.6
12	0.5	0.8
13	0.6	0.8
14	0.6	0.7
15	0	0
16	0.5	0.7
17	0.6	0.9
18	0.5	0.7
19	1.8	1.8
20	0.5	0.7
21	0.5	0.7
22	0.6	0.7
23	0.5	0.6
24	0.5	0.7
25	0.5	0.6
26	0	0
27	1.8	1.8
28	0.3	0.2
29	0	0
30	1.6	1.6
31	0.6	0.6
32	2.9	2.9
33	1.8	1.8
34	3.0	3.0
35	0.2	0.2
36	3.1	3.1
37	0	0
38	0.5	0
39	1.2	0.6
40	1.2	0.7
41	3.1	3.1
42	1.1	0.7
43	0.9	0.7
44	1.2	0.7
45	0.8	0.7
46	0.8	0.7
47	0.5	0.6
48	0	0
49	0.8	0.7
50	1.0	0.7
51	1.0	0.7
52	1.4	0.8
53	1.5	1.3
54	1.5	1.6
55	0	0
56	0.3	0.2
57	0	0.1
58	3.1	3.1
59	1.2	1.9
60	0	1.1
61	1.0	2.1
62	0.9	1.3
63	0.5	2.0
64	0.8	1.3
65	0.8	1.6
66	0.5	0.7
67	1.0	2.0
68	1.0	1.3
69	0	0
70	1.8	1.8
71	0.9	2.1
72	1.3	1.1
73	1.3	1.7
74	1.3	1.3
75	1.1	1.6
76	1.8	1.8
77	1.0	1.7
78	0.6	1.7
79	0.8	1.7
80	0.8	1.3
81	0.5	0.8
82	0	0
83	1.8	1.8
84	0.9	1.5
85	0.9	1.5
86	0.9	1.5
87	1.5	1.5
88	1.5	1.4
89	0	0
90	0	0
91	0	0
92	3.0	3.0
93	0	0
94	3.2	3.2
95	2.6	2.6
96	2.6	2.6
97	0	0
98	0	0
99	0	0
100	0	1.5
101	0.4	1.6
102	0.7	1.6
103	0.5	1.6
104	0	0
105	2.4	1.6
106	0.8	1.5
107	0.9	1.6
108	0.9	1.6
109	1.4	1.7
110	1.4	1.8
111	3.1	3.1
112	1.6	1.6
113	2.8	0.3
114	3.0	0
115	0	0.1
116	0	0
117	0	0
118	1.5	1.5
119	0	0
120	0	0
121	1.6	1.6
122	1.6	1.6
123	1.8	1.8
124	3.2	3.2
125	3.2	3.2
126	0.2	0.6
127	0	0
128	1.8	1.8
129	1.6	1.6
130	1.5	1.5
131	1.5	1.5
132	1.5	1.4
133	1.8	1.8
134	0	1.5
135	3.0	3.0
136	0	0
137	3.1	1.5
138	1.0	0.9
139	0	3.1
140	3.2	3.2
141	0	0
142	3.1	3.1
143	0	0
144	3.1	3.1
145	0	0
146	0.3	0
147	0.8	0.9
148	0	0.7
149	0	0.7
150	0	2.5
151	0	0
152	3.1	3.1
153	0	0
154	0	0
155	3.1	3.1
156	0	0
157	2.4	2.4
158	0.7	0.7
159	0.8	0.7
160	0.3	0.3
161	0.7	0.6
162	0	0
163	3.1	3.1
164	0	0
165	0	0
166	3.1	3.1
167	0	0
168	0.9	1.0
169	0.7	0.8
170	0	0.7
171	0.7	0.7
172	2.5	2.4
173	0	0
174	3.1	3.1
175	0	0
176	0	0
177	3.1	3.2
178	1.5	1.5
179	0.1	3.1
180	1.5	1.5
181	3.1	3.1
182	0	0
183	3.1	3.1
184	2.9	2.9
185	0	1.3
186	0	0
187	0	0
188	0	0
189	0	0
190	1.8	1.8
191	0	0
192	0	0
193	0	0
194	0	0
195	0	0
196	0	0
197	0	0
198	0	0
199	0	0
200	3.1	3.2
201	0	0
202	3.1	3.1
203	0	0
204	1.7	1.8
205	0	0
206	0	3.1
207	0	0
208	2.4	0
209	0.7	0.7
210	0	0.7
211	0.6	0
212	0.1	0.3
213	0	0
214	3.1	3.1
215	0	0
216	0	0
217	3.0	3.1
218	0	0
219	1.5	1.6
220	0.4	1.5
221	1.2	1.2
222	1.6	1.6
223	1.6	1.7
224	0	0
225	3.1	3.1
226	0	0
227	3.0	3.0
228	0	1.4
229	2.1	2.1
230	0	0
231	3.1	3.1
232	2.9	2.9
233	0	1.4
234	2.3	0
235	1.6	1.6
236	0.1	0
237	1.4	1.4
238	1.4	1.5
239	0	1.5
240	0	0
IC4002		
1	0	0
2	0.8	1.6
3	0.5	1.7
4	0.9	1.6
5	1.1	1.5
6	1.3	1.3
7	1.4	1.7
8	1.5	1.5
9	0	0
10	0	0
11	0	0
12	0	0
13	2.6	2.6
14	3.1	3.2
15	1.2	1.9
16	1.1	1.0
17	3.1	3.1
18	1.0	1.8
19	0.9	1.2
20	0	0
21	0.5	2.0
22	0.8	1.2
23	3.1	3.1
24	0.9	1.7
25	0.5	0.8
26	0	0
27	0.8	2.0
28	0	1.3
29	3.1	3.1
30	0.9	1.8
31	1.3	1.2
32	3.0	3.0
33	0	0
34	2.6	2.6
35	0	0
36	0	0
37	0	0
38	1.5	1.5
39	1.5	1.5
40	0.9	1.5
41	1.0	1.5
42	0.8	1.5
43	0.5	0.8
44	0.8	1.3
IC4003		
1	3.1	3.1
2	2.9	2.7
3	3.0	3.0
4	3.2	3.2
5	3.1	3.1
6	0	0
7	1.2	1.3
8	1.3	1.3
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	3.0	3.1
20	2.9	2.9
Q4001	-	-

<F/Z/I/MDA>

MODE PIN NO.	REC	PLAY
IC4201		
1	2.0	0.5
2	1.9	1.8
3	1.9	1.9
4	4.7	4.8
5	1.9	1.9
6	1.9	1.9
7	1.9	1.9
8	1.5	1.5
9	1.9	1.9
10	1.9	1.9
11	0	0
12	1.9	1.9
13	1.9	1.9
14	2.8	2.8
IC4202		
1	1.9	3.6
2	2.0	0.4
3	1.7	0.4
4	4.8	4.8
5	2.0	0
6	2.1	0.5
7	2.2	0
8	0	1.2
9	0.5	0.5
10	0.5	0.5
11	0	0
12	1.9	2.0
13	1.9	1.9
14	1.9	1.9
Q4501		
1	0	0
2	0.6	0.6
3	0	0.3
4	0.3	0
5	0	0.4
6	0.3	0
7	0	0
8	3.2	3.2
9	4.8	4.8
10	0	0
11	0	0
12	0	0
13	4.7	4.8
14	0.3	0
15	0	0
16	0.3	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	4.8	4.8
24	0.9	0.2
25	0	0
26	0.9	0.2
27	4.7	4.8
28	0.9	0.2
29	0	0
30	0.9	0.2
31	3.1	3.2
32	0	0
33	0	0
34	0.3	0.6
35	3.1	3.2
36	1.5	1.6
37	1.5	1.6
38	3.2	3.2
Q4201		
E	0.5	0.5
C	1.0	1.0
B	1.1	1.2
Q4202		
E	1.1	2.9
C	4.8	4.8
B	1.9	3.6
Q4251		
E	0	0
C	4.4	4.4
B	-	-
Q4501		
E	0	0
C	3.8	3.7
B	0	0
Q4502	-	-
Q4503	-	-
Q4504	-	-

<V-OUT>

MODE PIN NO.	REC	PLAY
IC4701	-	-
IC4702		
1	0	0
2	2.3	2.3
3	0	0
4	0	0
5	0	0
6	0	0
7	1.9	1.9
8	0	0
9	2.3	2.3
10	0	0
11	2.0	1.9
12	2.1	2.1
13	4.7	4.7
14	1.8	1.8
15	1.8	1.8
16	4.7	4.8
Q4701		
E	1.0	1.1
C	0	0
B	0.4	0.4
Q4702		
E	0	1.3
C	0	0
B	1.3	0.6

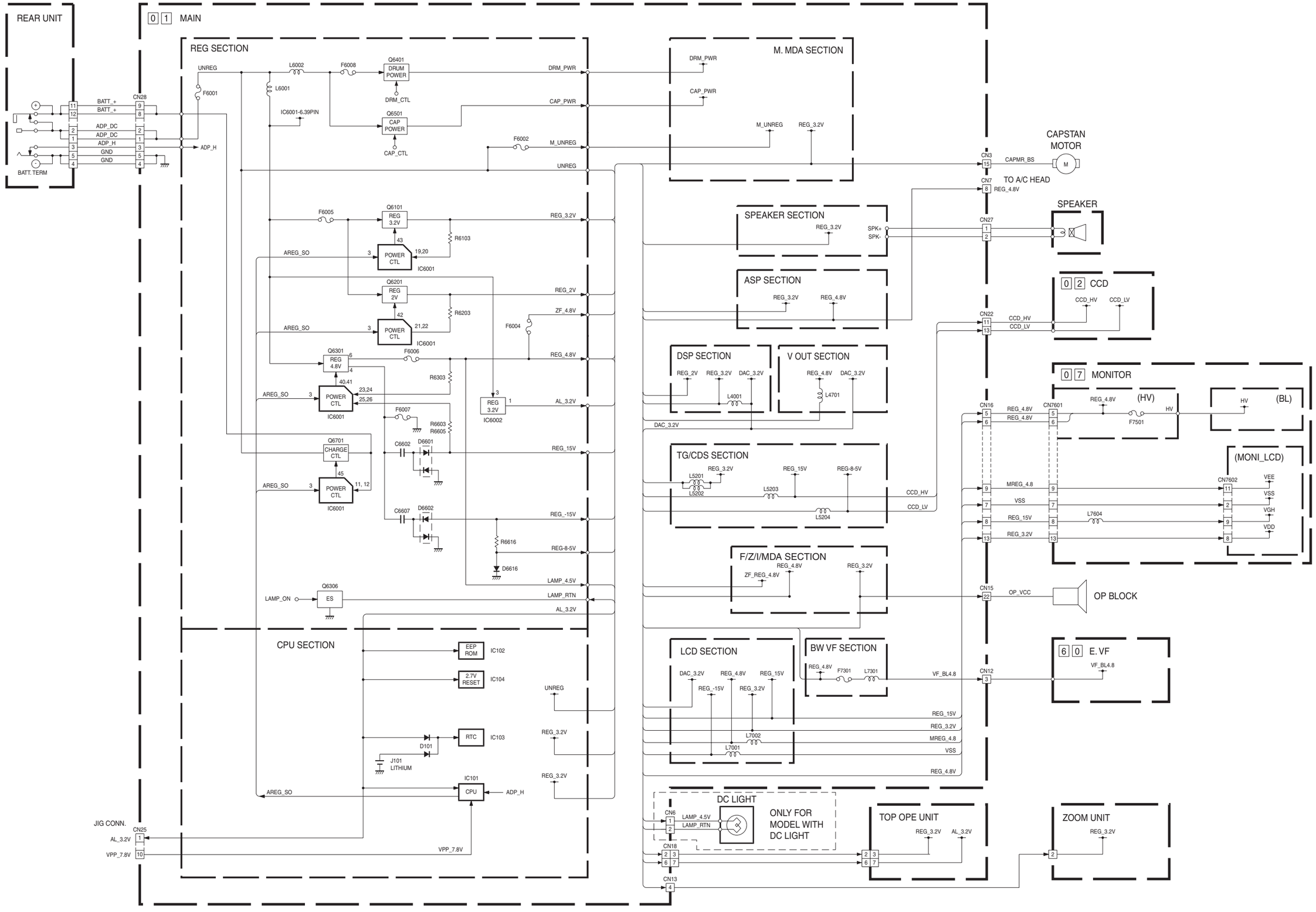
<TG CDS>

MODE PIN NO.	REC	PLAY
IC5201		
1	1.5	1.6
2	0	0
3	1.3	1.8
4	1.3	1.7
5	1.1	1.6
6	0.9	1.6
7	0.7	1.5
8	2.4	1.6
9	0.4	1.6
10	0.5	1.6
11	0.4	1.6
12	0	1.5
13	3.1	3.2
14	0	0
15	1.5	1.6
16	2.8	0.3
17	3.0	0
18	3.2	3.2
19	0	0
20	3.1	3.2
21	3.1	3.2
22	1.7	1.7
23	0	1.0
24	0	0
25	0	0
26	0	1.4
27	1.5	1.5
28	3.1	3.2
29	3.1	3.2
30	0	0
31	0	0
32	2.9	0
33	2.9	0
34	3.1	3.2
35	3.1	3.2
36	3.1	0.3
37	3.1	0.3
38	3.1	0.2
39	3.1	1.5
40	0	0
41	0	0
42	0	0
43	0	0
44	0.3	1.0
45	1.2	1.2
46	0.9	0.9
47	2.0	2.0
48	1.4	1.5
49	3.1	3.2
50	0	0
51	2.0	1.4
52	3.1	3.2
53	2.0	0
54	2.0	0
55	0	0
56	3.2	0
57	0	0
58	1.0	0
59	3.1	3.2
60	0.4	0
61	3.1	3.2
62	3.1	0
63	0.3	0
64	3.1	3.2
IC5202		
1	-7.5	14.9
2	-7.5	-7.5
3	-0.2	0
4	0	0
5	-0.1	0
6	3.2	3.2
7	0.1	0
8	3.2	3.2
9	0	0
10	3.1	0.6
11	0	0
12	3.0	0
13	3.1	3.2
14	3.0	0
15	0	0
16	14.8	14.9
17	-7.0	0
18	-7.0	0
19	0	0
20	14.8	14.8

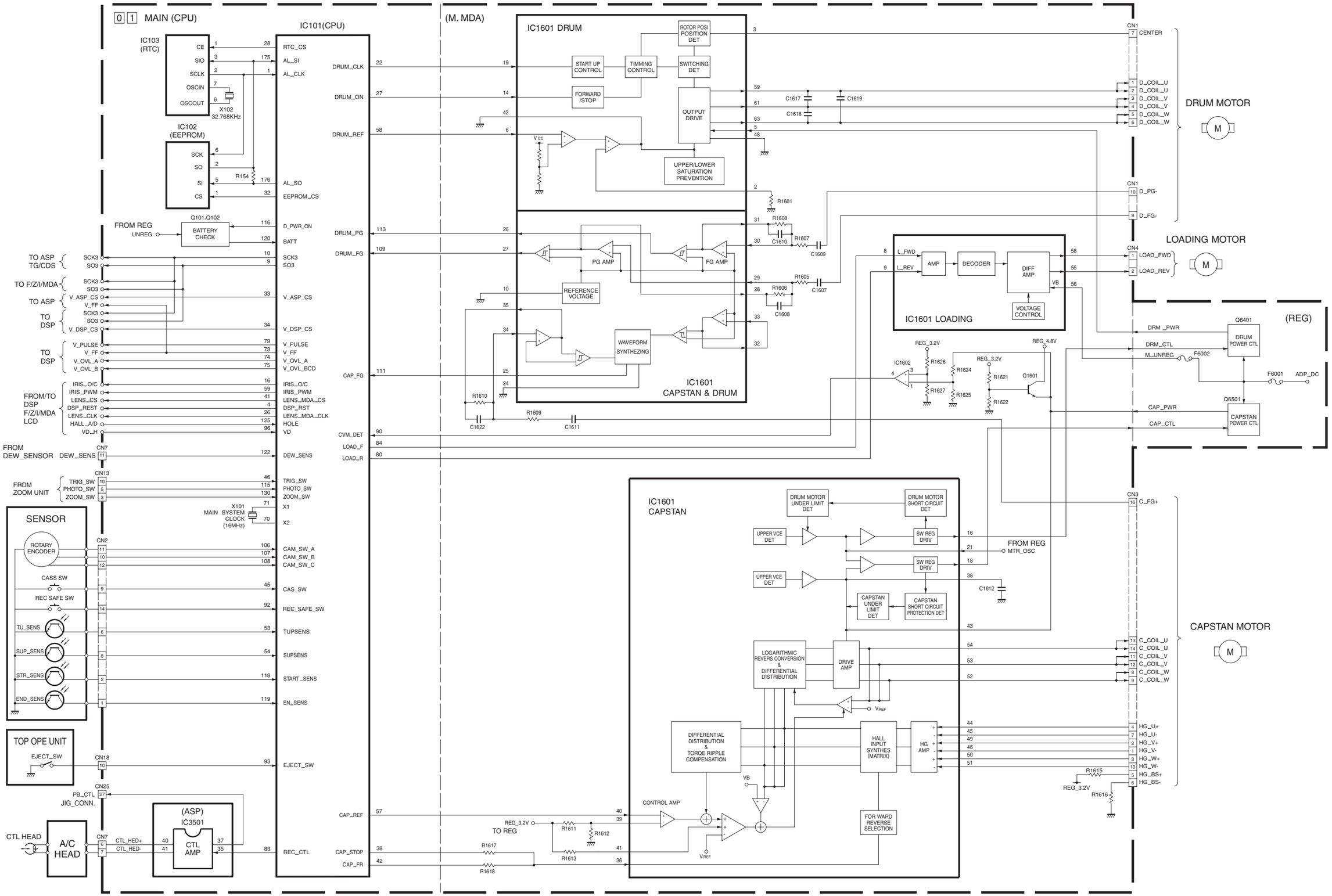
<REG>

MODE PIN NO.	REC	PLAY
IC6001		
1	3.2	3.2
2	3.2	3.2
3	0	0
4	-	-
5	0	0
6	11.1	11.0
7	1.0	1.0
8	1.3	1.3
9	2.1	2.2
10	0	0
11	0	0
12	0	0
13	0.2	0.4
14	0.2	0.2
15	0	0

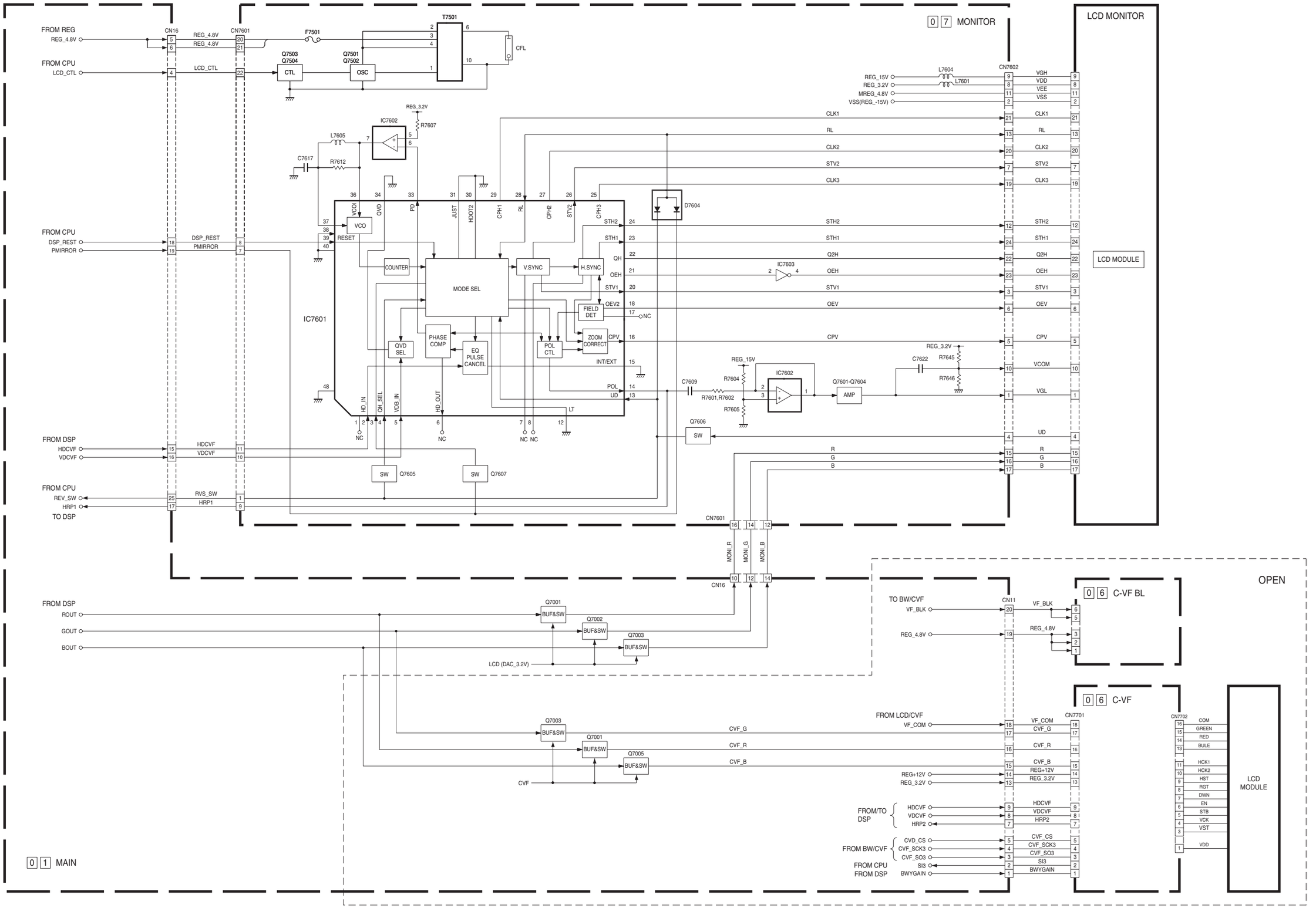
■ POWER SYSTEM BLOCK DIAGRAM



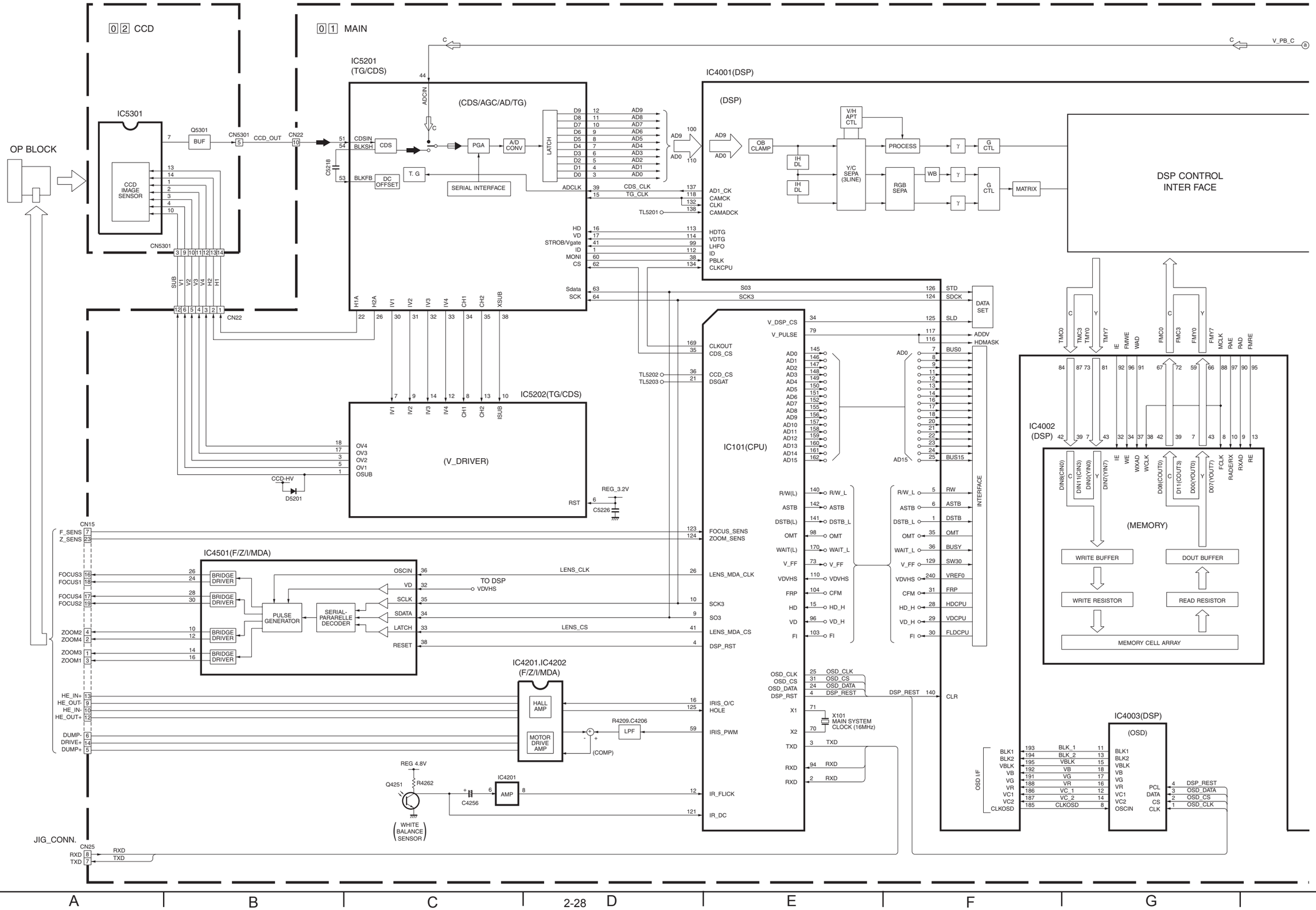
■ CPU/M.MDA SYSTEM BLOCK DIAGRAM



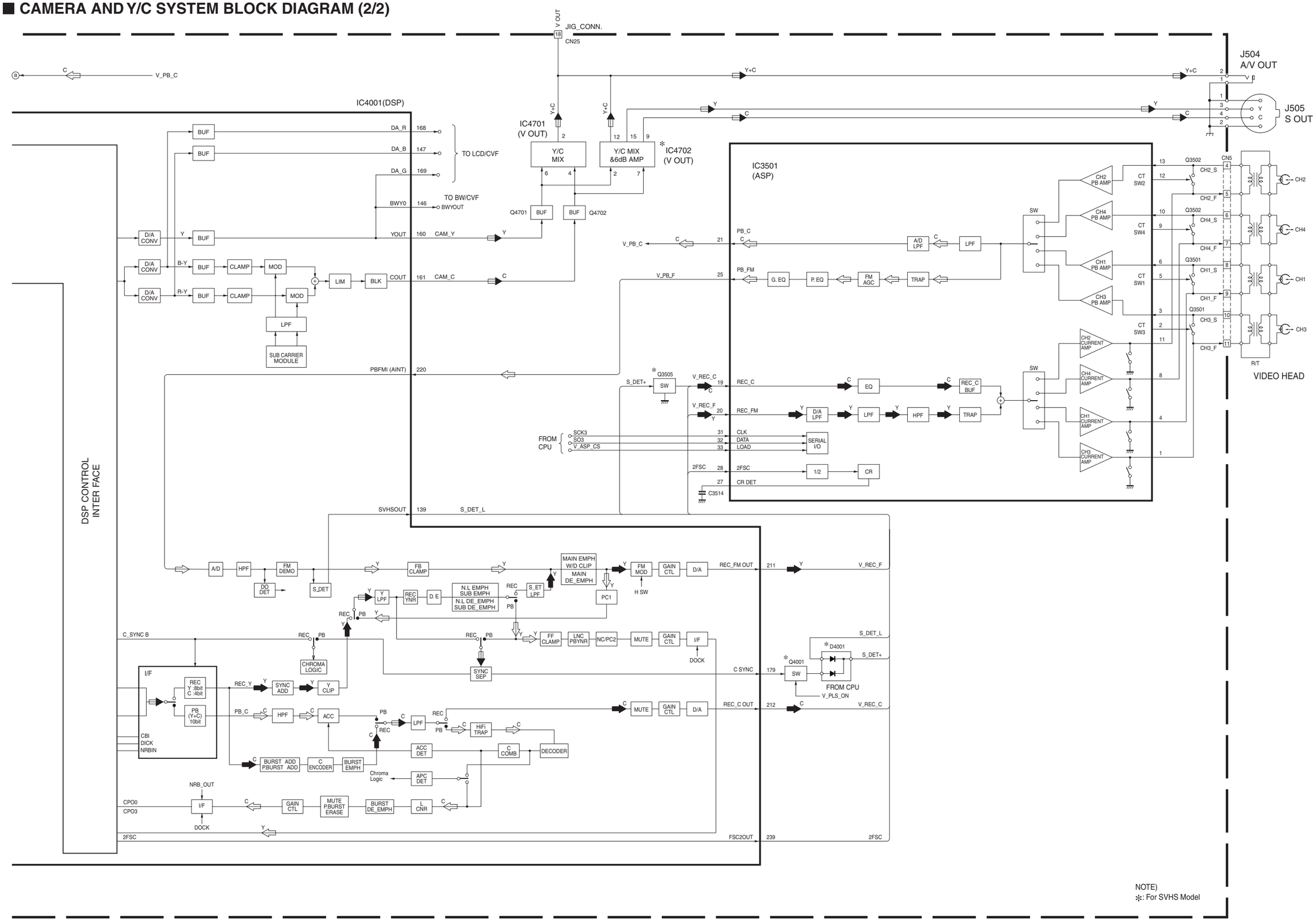
■ MONITOR SYSTEM BLOCK DIAGRAM



■ CAMERA AND Y/C SYSTEM BLOCK DIAGRAM (1/2)



■ CAMERA AND Y/C SYSTEM BLOCK DIAGRAM (2/2)



E. & O.E. No.86712 (WPC)-M3C7B3, M3C723 GR-SX25EK, GR-SX25EX, GR-SX25EZ, GR-SXM49EK, GR-SXM49EX, GR-SXM49EZ

JVC

VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY CAMCORDER CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.86712)

Printed in Japan
200301WPC

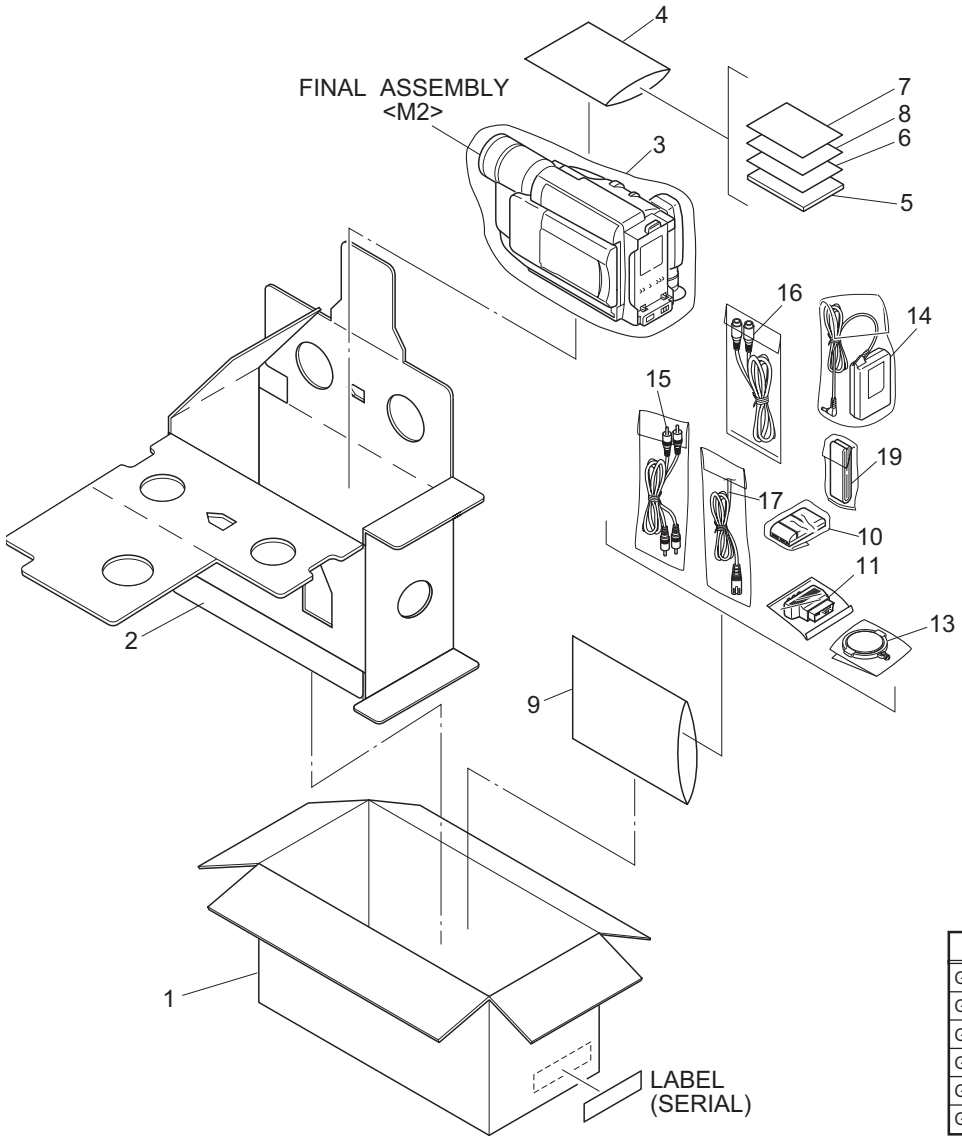
PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

1. PACKING AND ACCESSORY ASSY <M1>

The instruction manual to be provided with this product will differ according to the destination.



MODEL	MARK
GR-SX25EK	A
GR-SX25EX	B
GR-SX25EZ	C
GR-SXM49EK	D
GR-SXM49EX	E
GR-SXM49EZ	F

PACKING AND ACCESSORY ASSY <M1>

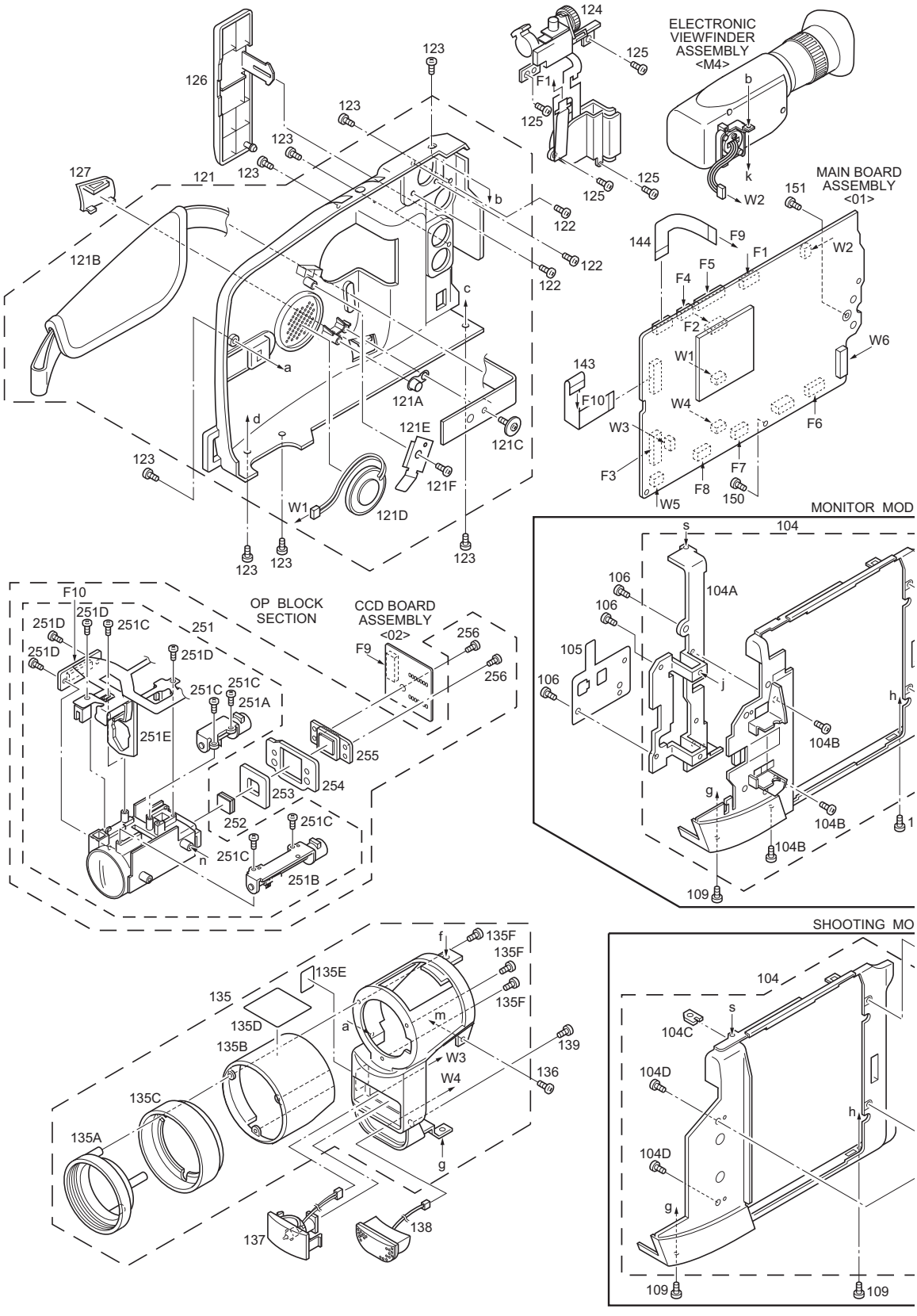
⚠ Symbol No.	Part No.	Part Name	Description	Local
1	LY33071-002B	PACKING CASE		A,B,C
1	LY33071-001B	PACKING CASE		D,E,F
2	LY33075-001B	CUSHION		
3	LY30023-002A	POLY BAG		
4	QPA02003506P	POLY BAG	20cm x 35cm	A,D
4	QPA02003506	POLY BAG	20cm x 35cm	B,C,E,F
⚠ 5	LYT1061-001B	INST BOOK	(ENGLISH)	A,D
⚠ 5	LYT1060-002C	INST BOOK	(GERMAN)	B,E
⚠ 5	LYT1060-003C	INST BOOK	(FRENCH)	B,E
⚠ 5	LYT1060-004C	INST BOOK	(DUTCH)	B,E
⚠ 5	LYT1060-005C	INST BOOK	(SPANISH)	B,E
⚠ 5	LYT1060-006C	INST BOOK	(ITALIAN)	B,E
⚠ 5	LYT1060-011B	INST BOOK	(RUSSIAN)	C,F
⚠ 5	LYT1060-012B	INST BOOK	(CZECH)	C,F
⚠ 5	LYT1060-013B	INST BOOK	(POLISH)	C,F

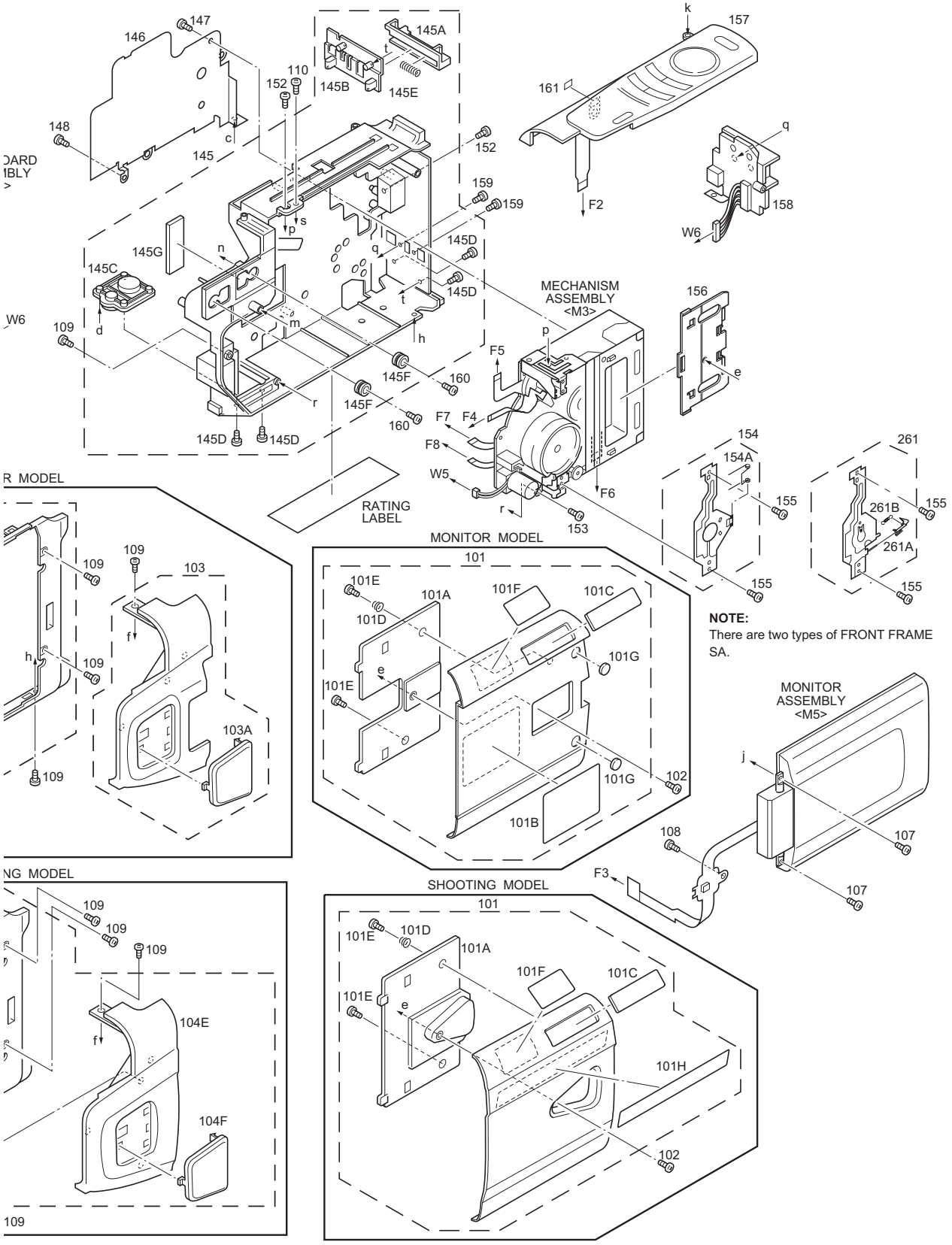
⚠ Symbol No.	Part No.	Part Name	Description	Local
⚠ 5	LYT1060-014B	INST BOOK	(HUNGARIAN)	C,F
6	LYT0194-001B	Q.CARD	(JUK)	A,D
7	BT-54008-4	GUARANTY CARD		A,D
8	BT-54013-5	WARRANTY CARD		B,C,E,F
9	QPA02003506P	POLY BAG	20cm x 35cm	A,D
9	QPA02003506	POLY BAG	20cm x 35cm	B,C,E,F
⚠ 10	YQ10629E	BATTERY PACK ASSY		
11	PEMC1174	CONNECTOR		
13	LY43388-001A	LENS CAP ASSY		
⚠ 14	LY20955-001C	AC ADAPTER	AP-V13E	
⚠ 14 or	LY20956-001B	AC ADAPTER	AP-V11E	
15	PEAC0362-150	A/V RCA CABLE		
16	QAM0004-003	S CABLE		
⚠ 17	QMPP110-190-JR	POWER CORD(EK)	1.9m BLACK	A,D
⚠ 17	QMPL120-190-JR	POWER CORD(EU)	1.9m BLACK	B,C,E,F
19	LY20186-001A	SHOULDER STRAP		

2. FINAL ASSY <M2>

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.




147
146
145A
110
152
145B
145E
k
157
161
148
c
145
152
159
159
F2
q
158
W6
145G
n
145C
d
109
m
145D
t
h
MECHANISM ASSEMBLY <M3>
156
p
F5
e
145F
160
r
F7
F4
F8
W5
F6
153
154
154A
155
261
261B
261A
RATING LABEL
MONITOR MODEL
101
101E
101A
101F
101C
101D
101G
102
101B
NOTE:
There are two types of FRONT FRAME SA.
MONITOR ASSEMBLY <M5>
j
108
107
F3
SHOOTING MODEL
103
103A
104E
104F
101H

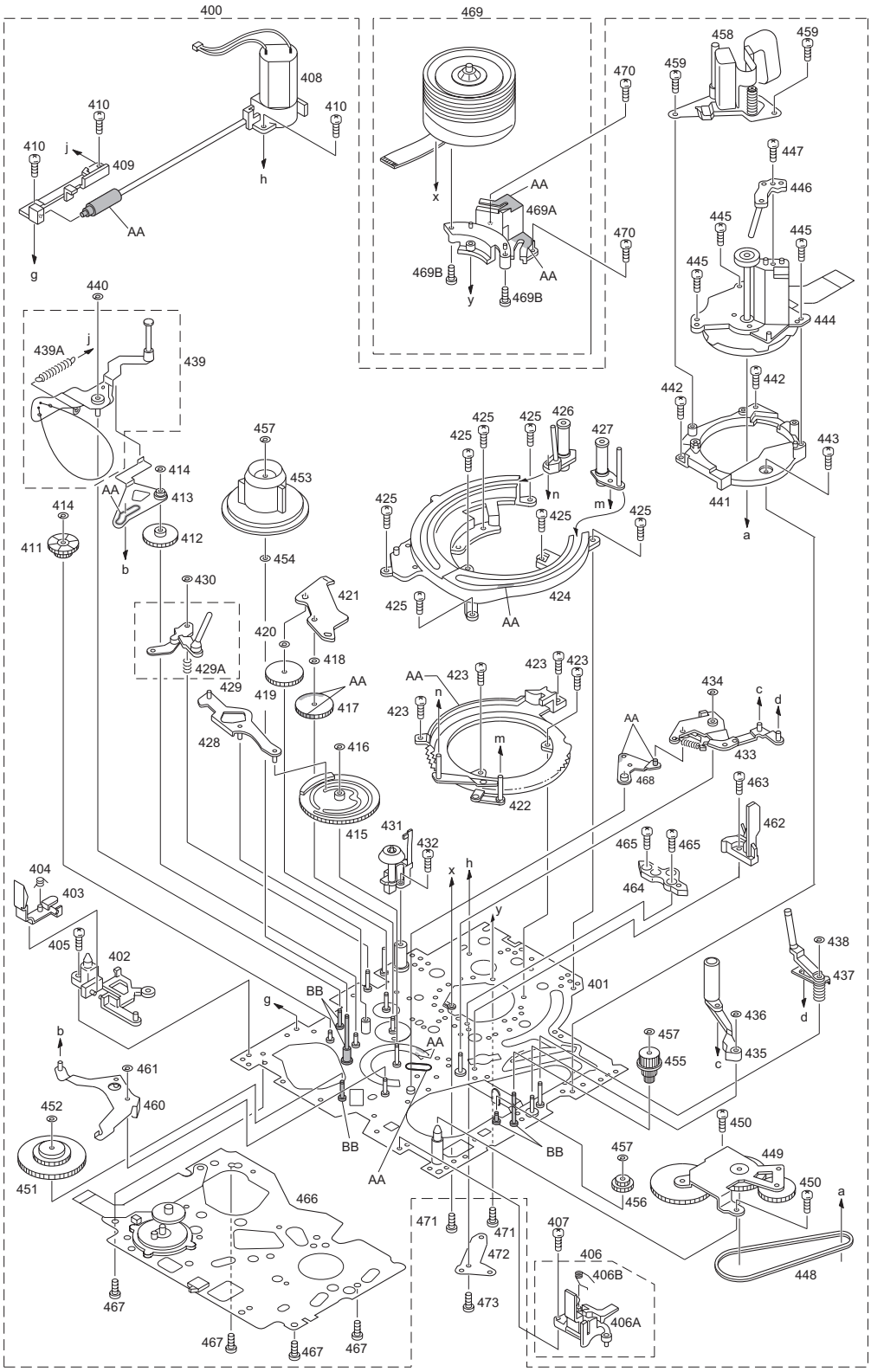
FINAL ASSEMBLY <M2>

⚠ Symbol No.	Part No.	Part Name	Description	Local
101	LY20928-003D	C.COVER(S) ASSY		A
101	LY20928-001D	C.COVER(S) ASSY		B,C
101	LY20927-001C	C.COVER(M) ASSY		D
101	LY20927-002C	C.COVER(M) ASSY		E,F
101A	LY32959-001A	P.PLATE (S)		A,B,C
101A	LY32952-001A	P.PLATE(M)		D,E,F
101B	LY44124-001B	LABEL (CAUTION)		D,E,F
101C	LY42883-001B	MARK		
101D	LY43336-001A	SPRING		
101E	YQ43762	SPECIAL SCREW	(x2)	
101F	LY44007-001A	STICKER(C)		B,C,E,F
101G	LY40076-001A	SPACER	(x2)	D,E,F
101H	LY43982-001A	STICKER(B)		A,B,C
102	QYSLSF20D0R	TAP SCREW	2mm x 13mm	A,B,C
102	QYSLSF2060D	TAP SCREW	2mm x 6mm	D,E,F
103	LY33068-001C	COV.(UPPER/M)ASSY		D,E,F
103A	LY20917-001A	ORNAMENT		D,E,F
104	LY20954-001D	UPPER CASE(S)ASSY		A,B,C
104	LY20950-001C	UPPER CASE(M)ASSY		D,E,F
104A	LY20918-001B	BRACKET(MON.)		D,E,F
104B	QYSLSP2020D	SCREW	2mm x 2mm(x3)	D,E,F
104C	LY43988-001A	BRACKET		A,B,C
104D	QYSLSF2060D	TAP SCREW	2mm x 6mm(x2)	A,B,C
104E	LY10415-001D	COVER(UPPER/S)		A,B,C
104F	LY20917-001A	ORNAMENT		A,B,C
105	LY43942-001B	SHEET(FPC)		D,E,F
106	QYSLSF2060Z	TAP SCREW	2mm x 6mm(x3)	D,E,F
107	LY30018-090A	SPECIAL SCREW	(x2)	D,E,F
108	QYSLSP2030D	SCREW	2mm x 3mm	D,E,F
109	QYSLSF2060D	TAP SCREW	2mm x 6mm(x6)	
110	QYSLSP2030D	SCREW	2mm x 3mm	
121	LY20925-002C	LOWER CASE ASSY		A,B,C
121	LY20925-001D	LOWER CASE ASSY		D,E,F
121A	LY40081-001A	CAP		
121B	LY20682-001A	GRIP BELT		
121C	LY30018-003A	SPECIAL SCREW		
121D	QAS0061-001	SPEAKER		D,E,F
121E	LY42764-001B	HOLDER(SPEAKER)		D,E,F
121F	QYSLSF2050Z	TAP SCREW	2mm x 5mm	D,E,F
122	QYSLSF2050Z	TAP SCREW	2mm x 5mm(x3)	
123	QYSLSF2060D	TAP SCREW	2mm x 6mm(x8)	
124	LY10393-001B	ZOOM UNIT		
125	QYSLSF2050Z	TAP SCREW	2mm x 5mm(x4)	
126	LY31945-003A	COVER(JACK)		
127	LY32955-001A	COVER(JIG)		
135	LY20926-001C	F. COVER ASSY		
135A	LY32951-001C	HOOD		
135B	LY32949-001A	RING		
135C	LY32950-001A	COVER(HOOD)		
135D	LY43983-001A	STICKER(A)		
⚠ 135E	LY44141-001A	CAUTION LABEL		
135F	QYSLSF2070D	SPECIAL SCREW	2mm x 7mm(x3)	
136	QYSLSF2060D	TAP SCREW	2mm x 6mm	
137	LY33067-001A	DC LIGHT		
138	LY32981-001A	MIC		
139	QYSLSF2070D	SPECIAL SCREW	2mm x 7mm	
143	WJT0086-001A	E-CARD WIRE	OP BLOCK - MAIN CN15	
144	QAL0450-001	FPC	MAIN CN22 - CCD CN5301	
145	LY20949-001B	FRAME ASSY		
145A	LY32972-001A	KNOB(BATT.)		
145B	LY32973-001B	HOLDER(KNOB)		
145C	YQ31843	BASE		
145D	QYSLSF2060D	TAP SCREW	2mm x 6mm(x4)	
145E	LY30002-053A	COMPRES. SPRING		
145F	LY41082-001A	CUSHION(OP)	(x2)	
145G	LY30029-0A4A	SPACER(A)		
146	LY32966-001A	S.CASE(MAIN)		
147	QYSPSPU1720Z	SCREW	1.7mm x 2mm	
148	QYSPSTU1725M	TAP SCREW	1.7mm x 2.5mm	
150	QYSLSF2060D	TAP SCREW	2mm x 6mm	
151	QYSLSF2060D	TAP SCREW	2mm x 6mm	
152	LY41173-001A	SPECIAL SCREW	(x2)	
153	QYSLSF1750D	TAP SCREW	1.7mm x 5mm	
154	LY31790-001A	FRONT FRAME ASSY		
154A	YQ44144-1-1	TAPE GUIDE		
155	SPSH1725M	SCREW	(x2)	
156	LY32953-001A	C.COVER INSIDE		
157	LY10392-001C	TOP OPE UNIT		
158	LY20952-001C	REAR BOARD ASSY		
159	QYSLSF2060D	TAP SCREW	2mm x 6mm(x2)	
160	LY30018-0G9A	SPECIAL SCREW	(x2)	
161	LY30030-072A	SPACER(A)		
251	LY33085-001A	OP BLOCK ASSY		
251A	LY30724-001B	FOCUS MOTOR		
251B	LY30723-001B	ZOOM MOTOR		
251C	PTY31727-216	SCERW	(x5)	
251D	PTY33085-001	SCERW	(x4)	
251E	PTY33085-006	IRIS MOTOR UNIT		
252	LY44004-001A	OP LPF		
253	LY44005-001A	SHEET		
254	LY32975-001A	SPACER		
255	LYH30437-001	CCD BASE ASSY		
256	LY30018-011A	SPECIAL SCREW	(x2)	
261	LY44193-001B	FRONT FRAME SA		
261A	LY33428-001B	TAPE GUIDE		
261B	LY44176-002A	TENSION SPRING		

3. MECHANISM ASSEMBLY <M3>

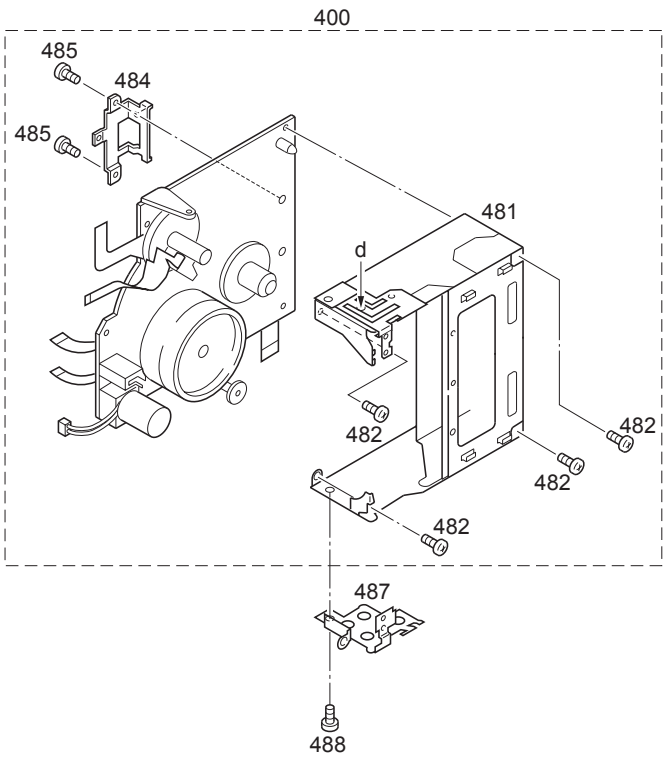
BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JP	AA
Oil	YTU94027	BB

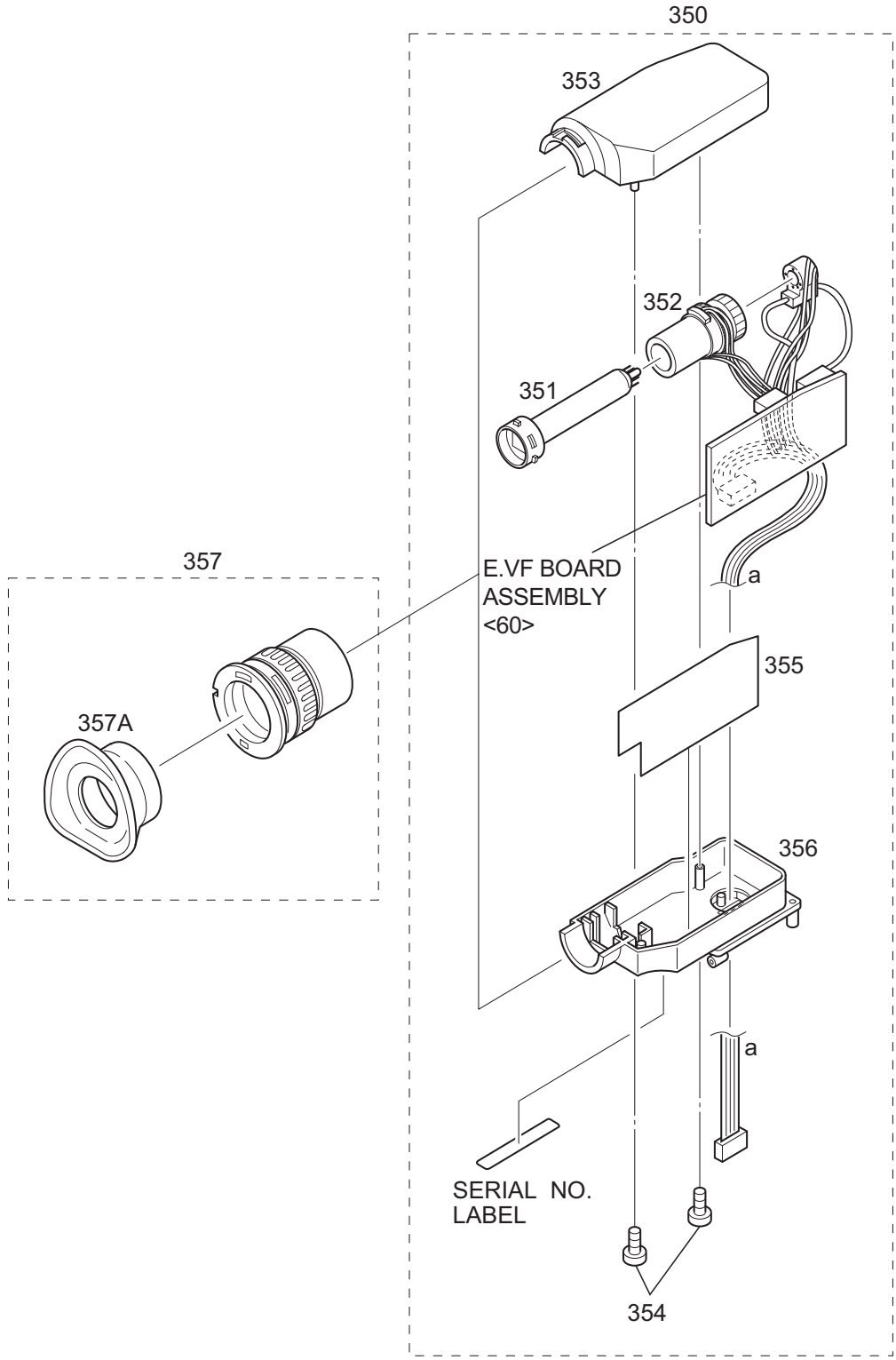
NOTE: The section marked in AA and BB indicate lubrication and greasing areas.



MECHANISM ASSEMBLY <M3>

⚠ Symbol No.	Part No.	Part Name	Description	Local
400	YMA0040A-E	MECHA(B)ASSY		
401	LY20612-001B	MAIN DECK ASSY		
402	LY31817-001A	CASSETTE GUIDE(LEFT)		
403	LY31815-001A	SW LEVER(LEFT)		
404	LY42581-001A	TORSION SPRING		
405	LY42722-001A	SCREW		
406	YQ44339A-7	CASSETTE GUIDE ASSY(RIGHT)		
406A	YQ32162-1-3	SW.LEVER(RIGHT)		
406B	YQ44340-1-4	TORSION SPRING		
407	LY42819-001A	SCREW		
408	LY31826-001A	MOTOR BRACKET ASSY		
409	LY20951-001A	WORM BRACKET		
410	LY42722-001A	SCREW	(x3)	
411	LY31925-001A	WHEEL GEAR		
412	LY42730-001A	MIDDLE GEAR		
413	LY42521-001A	CANCEL LEVER ASSY		
414	LY42754-003A	SLIT WASHER	(x2)	
415	YQ20827-2-1	CONTROL CAM		
416	PQM30017-25	SLIT WASHER		
417	LY42733-001A	LOADING GEAR(T)ASSY		
418	LY42754-003A	SLIT WASHER		
419	LY42732-001A	LOADING GEAR(S)ASSY		
420	LY42754-003A	SLIT WASHER		
421	LY42403-001A	COVER PLATE		
422	LY42452-001A	LOADING RING ASSY		
423	LY42728-001A	SCREW	(x4)	
424	LY10239-001A	GUIDE RAIL		
425	LY42728-001A	SCREW	(x7)	
426	LY30161-001B	POLE BASE(S)ASSY		
427	LY30162-002A	POLE BASE(T)ASSY		
428	LY42523-001A	DRIVE LEVER ASSY		
429	LY44000-001A	SLANT ARM ASSY		
429A	LY43992-001A	TORSION SPRING(S)		
430	LY42754-003A	SLIT WASHER		
431	LY42739-003A	ROLLER BASE ASSY		
432	LY42722-001A	SCREW		
433	LY42494-001A	LINK ARM ASSY		
434	PQM30017-25	SLIT WASHER		
435	LY40018-002A	PINCH ROLLER ARM ASSY		
436	PQM30017-25	SLIT WASHER		
437	LY42541-001B	TAKE UP GUIDE ARM ASSY		
438	LY42754-003A	SLIT WASHER		
439	LY42571-001A	TENSION ARM ASSY		
439A	LY42669-001A	TENSION SPRING		
440	LY42754-003A	SLIT WASHER		
441	YQ20797-1-5	MOTOR BASE		
442	LY42722-001A	SCREW	(x2)	
443	YQ44460	SCREW		
444	QAR0212-002	CAPSTAN MOTOR		
445	YQ44304	TAPPING SCREW	(x3)	
446	LY42731-001A	SLANT POLE BASE ASSY		
447	YQ44304	TAPPING SCREW		
448	YQ43710-2	TIMING BELT		
449	LY42678-003A	CENTER PULLEY UNIT		
450	LY42722-002A	SCREW	(x2)	
451	LY42670-001A	SUPPLY CLUTCH ASSY		
452	LY42754-003A	SLIT WASHER		
453	YQ31861-1-7	REEL DISC		
454	LY42755-001A	WASHER		
455	LY31924-001A	TAKE UP GEAR		
456	LY42738-001A	BRAKE SUB GEAR		
457	LY42754-003A	SLIT WASHER	(x3)	
458	LY42544-002A	A/C HEAD UNIT		
459	SPSN1750Z	SCREW	(x2)	
460	LY42517-001A	EJECT LEVER ASSY		
461	LY42754-003A	SLIT WASHER		
462	YQ31833-1-1	LED GUIDE		
463	LY42722-001A	SCREW		
464	LY42729-001A	DRUM SPACER		
465	LY42722-001A	SCREW	(x2)	
466	QSW0888-002	ROTARY ENCODER		
467	LY42722-002A	SCREW	(x4)	
468	LY31814-001A	LINK LEVER		
469	YDV2099C	DRUM FINAL ASSY		
469A	YDM1003-1-5	CATCHER		
469B	QYSPSPU1735M	SCREW	(x2)	
470	LY42722-001A	SCREW	(x2)	
471	SPSH1740Z	SCREW	(x2)	
472	LY43542-001A	BRUSH		
473	LY42722-003A	SCREW		
481	LY31808-001C	CASSETTE HOUSING FINAL ASSY		
482	LY42722-003A	SCREW	(x4)	
484	LY32326-001A	BRACKET(MECHA)		
485	LY42722-003A	SCREW	(x2)	
487	LY31807-001A	SIDE BRACKET L		
488	LY42722-003A	SCREW		

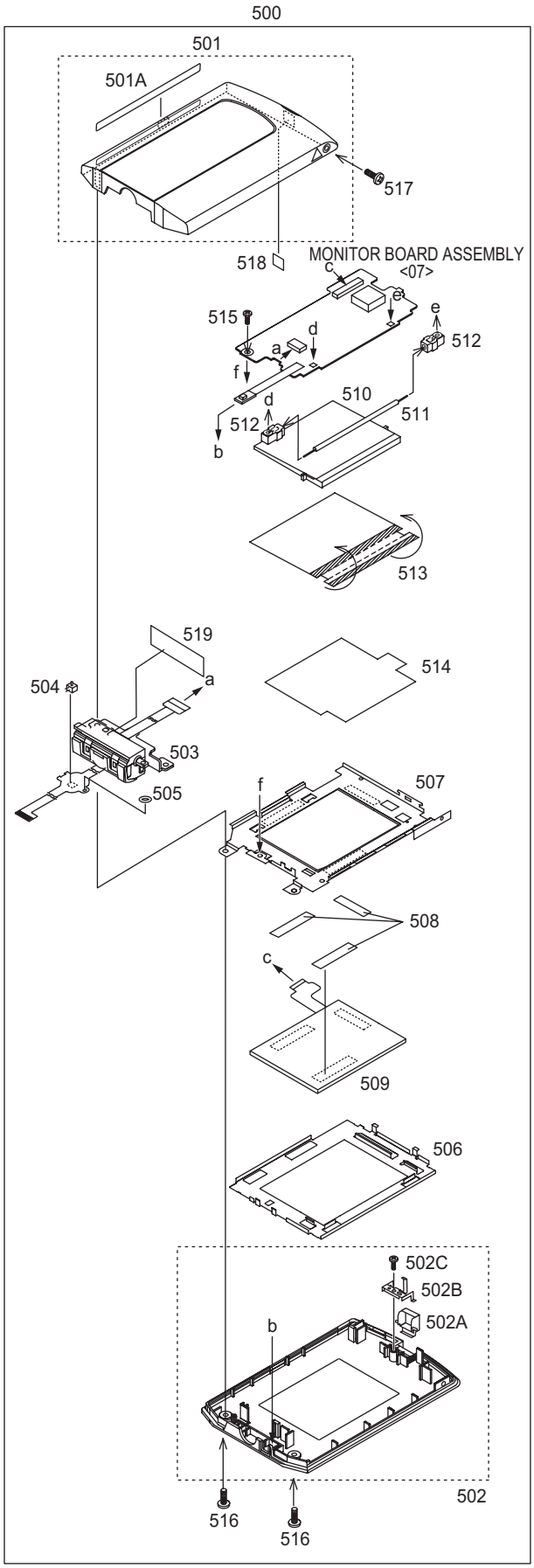
4. ELECTRONIC VIEWFINDER ASSEMBLY <M4>



ELECTRONIC VIEWFINDER ASSY<M4>

⚠ Symbol No.	Part No.	Part Name	Description	Local
⚠350	LY20701-013A	B/W VF ASSY		
⚠351	PEDP0193	CRT		
⚠352	QQD0026-001	DEFLECTION YOKE		
⚠353	LY10165-001B	CASE(L)		
354	QYSPSGU1760M	TAP SCREW	(x2)	
⚠355	LY41280-001A	SHEET(SHIELD)		
⚠356	PTY20701-011	BOTTOM CASE ASSY		
357	PTY20374-201	LENS ASSY		
357A	LY20411-001A	EYE CAP		

5. MONITOR ASSEMBLY <M5> [D, E, F]



MONITOR ASSEMBLY <M5>

⚠ Symbol No.	Part No.	Part Name	Description	Local
500	LY20947-001A	MONITOR ASSY		
501	LY33066-001A	M.COVER ASSY		
501A	LY43982-001A	STICKER(B)		
502	LY33077-001B	M.CASE ASSY		
502A	LY32967-001B	KNOB(LOCK)		
502B	LY32988-001A	LOCK SPRING		
502C	QYSLSF2050Z	TAP SCREW	2mm x 5mm	
503	LY33005-001B	MON.HINGE ASSY		
504	NSW0200-001X	LEVER SWITCH		
505	LY44159-001A	WASHER		
506	LY20814-001A	S.CASE(2.5)		
507	LY20798-001B	LCD FRAME(2.5)		
508	LY30029-0R5A	SPACER(A)	(x3)	
509	QLD0248-001	LCD MODULE		
510	LY43938-001A	LIGHT SCREEN		
511	QLL0142-001	LAMP		
512	LY43936-001A	HOLDER(LAMP)	(x2)	
513	LY43396-001A	SHEET(REFLECT)		
514	LY43362-001A	DIFF.SHEET(2.5)		
515	QYSLSP2040D	SCREW	2mm x 4mm	
516	QYSLSF2060D	TAP SCREW	2mm x 6mm(x2)	
517	QYSLSP2040D	SCREW	2mm x 4mm	
518	LY44129-001A	SHEET(M.SENSOR)		
519	LY30030-092A	SPACER(A)		

6. ELECTRICAL PARTS LIST

MAIN BOARD ASSEMBLY <01>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10400EB1-02	MAIN BOARD ASSY		A,B,C
PW1	YB10400EA1-02	MAIN BOARD ASSY		D,E,F
IC101	UPD703039-050	IC(MICRO C ROM)		
IC101	or UPD70F3040-050	IC(MICRO C ROM)		
IC102	CAT25C16SI-X	IC		
IC102	or 25LC160-I/SN-X	IC		
IC102	or M95160-WMN6-X	IC		
IC102	or AT25160N-10SC-X	IC		
IC103	RS5C314-X	IC		
IC104	BD4827FVE-W	IC		
⚠ IC1601	LB11955WA-MPB	IC		
IC1602	TA75S393F-X	IC		
IC2001	MC74AC04DT-X	IC		
IC2001	or TC74AC04FT-X	IC(DIGITAL)		
IC2401	NJM2149V-X	IC		D,E,F
IC3501	HA118224F	IC		
IC4001	JCY0140-3	IC		
IC4002	MSM548331TA	IC(DIGITAL)		
IC4003	UPD6467GR-529-X	IC(MICRO C ROM)		
IC4201	BA10324AF-XE	IC		
IC4201	or LM324AD-X	IC		
IC4202	BA10324AF-XE	IC		
IC4202	or LM324AD-X	IC		
IC4501	UPD16835AGS-X	IC		
IC4702	BA7665FS-X	IC		
IC5201	HD49335F	IC		
IC5202	MN31121SA-X	IC		
IC6001	FA7706F	IC		
IC6002	XC6202P33P-X	IC		
Q101	2SA1774/RS/-X	TRANSISTOR		
Q101	or 2SA1836/6-7/-X	TRANSISTOR		
Q101	or BC857BT-X	TRANSISTOR		
Q102	DTC144EE-X	DIGI TRANSISTOR		
Q102	or UN9213J-X	DIGI TRANSISTOR		
Q102	or RN1104-X	DIGI TRANSISTOR		
Q102	or BCR148T-X	DIGI TRANSISTOR		
Q103	2SC4617/QR/-X	TRANSISTOR		
Q103	or 2SC4783/5-6/-X	TRANSISTOR		
Q105	2SC4617/RS/-X	TRANSISTOR		
Q105	or BC847BT-X	TRANSISTOR		
Q108	DTC114EE-X	DIGI TRANSISTOR		
Q108	or UN9211J-X	DIGI TRANSISTOR		
Q108	or RN1102-X	DIGI TRANSISTOR		
Q108	or BCR133T-X	DIGI TRANSISTOR		
Q109	DTC114EE-X	DIGI TRANSISTOR		
Q109	or UN9211J-X	DIGI TRANSISTOR		
Q109	or RN1102-X	DIGI TRANSISTOR		
Q109	or BCR133T-X	DIGI TRANSISTOR		
Q1601	2SD1664/QR/-W	TRANSISTOR		
Q2001	DTA114TE-X	DIGI TRANSISTOR		
Q2001	or BCR129T-X	DIGI TRANSISTOR		
Q2007	PUMX1-W	PAIR TRANSISTOR		
Q2007	or UMX1N-W	PAIR TRANSISTOR		
Q2007	or HN1C01FU/G/-X	PAIR TRANSISTOR		
Q2007	or BC847S-X	PAIR TRANSISTOR		
Q2008	PUMT1-W	PAIR TRANSISTOR		
Q2008	or HN1A01FU/G/-X	PAIR TRANSISTOR		
Q2021	DTC144EE-X	DIGI TRANSISTOR		
Q2021	or UN9213J-X	DIGI TRANSISTOR		
Q2021	or RN1104-X	DIGI TRANSISTOR		
Q2021	or BCR148T-X	DIGI TRANSISTOR		
Q2022	DTC144EE-X	DIGI TRANSISTOR		
Q2022	or UN9213J-X	DIGI TRANSISTOR		
Q2022	or RN1104-X	DIGI TRANSISTOR		
Q2022	or BCR148T-X	DIGI TRANSISTOR		
Q2023	2SC4617/QR/-X	TRANSISTOR		
Q2023	or 2SC4783/5-6/-X	TRANSISTOR		
Q2023	or BC847BT-X	TRANSISTOR		
Q2071	2SC4617/QR/-X	TRANSISTOR		
Q2071	or 2SC4783/5-6/-X	TRANSISTOR		
Q2071	or BC847BT-X	TRANSISTOR		
Q2401	DTC144EE-X	DIGI TRANSISTOR		D,E,F
Q2401	or UN9213J-X	DIGI TRANSISTOR		D,E,F
Q2401	or RN1104-X	DIGI TRANSISTOR		D,E,F
Q2401	or BCR148T-X	DIGI TRANSISTOR		D,E,F
Q3501	HN1C01FU/G/-X	PAIR TRANSISTOR		
Q3502	HN1C01FU/G/-X	PAIR TRANSISTOR		
Q3505	DTC144EE-X	DIGI TRANSISTOR		
Q3505	or UN9213J-X	DIGI TRANSISTOR		
Q3505	or RN1104-X	DIGI TRANSISTOR		
Q3505	or BCR148T-X	DIGI TRANSISTOR		
Q3901	HN1A01FU/G/-X	PAIR TRANSISTOR		
Q4001	DTC144EE-X	DIGI TRANSISTOR		
Q4001	or UN9213J-X	DIGI TRANSISTOR		
Q4001	or RN1104-X	DIGI TRANSISTOR		
Q4001	or BCR148T-X	DIGI TRANSISTOR		
Q4201	2SC4617/QR/-X	TRANSISTOR		
Q4201	or 2SC4783/5-6/-X	TRANSISTOR		
Q4201	or BC847BT-X	TRANSISTOR		
Q4202	2SC4617/QR/-X	TRANSISTOR		
Q4202	or 2SC4783/5-6/-X	TRANSISTOR		
Q4202	or BC847BT-X	TRANSISTOR		
Q4251	RPM-22PB	PHOTO TRANSISTOR		
Q4501	DTC114EE-X	DIGI TRANSISTOR		
Q4501	or UN9211J-X	DIGI TRANSISTOR		
Q4501	or RN1102-X	DIGI TRANSISTOR		
Q4501	or BCR133T-X	DIGI TRANSISTOR		
Q4701	2SA1774/QR/-X	TRANSISTOR		
Q4701	or 2SA1836/5-6/-X	TRANSISTOR		
Q4701	or BC857BT-X	TRANSISTOR		
Q4702	2SA1774/QR/-X	TRANSISTOR		
Q4702	or 2SA1836/5-6/-X	TRANSISTOR		
Q4702	or BC857BT-X	TRANSISTOR		
Q6101	QS6U24-W	MOS FET		
Q6201	SSM5G01TU-X	MOS FET		
Q6301	FDC6506P-X	MOS FET		
Q6306	2SK3577-X	MOS FET		
Q6401	SSM5G01TU-X	MOS FET		
Q6501	SSM5G01TU-X	MOS FET		
Q6608	DTC144EE-X	DIGI TRANSISTOR		
Q6608	or UN9213J-X	DIGI TRANSISTOR		
Q6608	or RN1104-X	DIGI TRANSISTOR		
Q6608	or BCR148T-X	DIGI TRANSISTOR		
Q6701	RSQ035P03-W	MOS FET		
Q6702	2SC4097/QR/-X	TRANSISTOR		
Q6702	or 2SC4173/3-4/-X	TRANSISTOR		
Q6702	or BC817-25W-X	TRANSISTOR		
Q6802	DTA144EUA-X	DIGI TRANSISTOR		
Q6811	2SA1577/QR/-X	TRANSISTOR		
Q6811	or 2SA1608/3-4/-X	TRANSISTOR		
Q6811	or BC807-25W-X	TRANSISTOR		
Q7001	PUMX1-W	PAIR TRANSISTOR		D,E,F
Q7001	or UMX1N-W	PAIR TRANSISTOR		D,E,F
Q7001	or HN1C01FU/G/-X	PAIR TRANSISTOR		D,E,F
Q7002	PUMX1-W	PAIR TRANSISTOR		D,E,F
Q7002	or UMX1N-W	PAIR TRANSISTOR		D,E,F
Q7002	or HN1C01FU/G/-X	PAIR TRANSISTOR		D,E,F
Q7003	PUMX1-W	PAIR TRANSISTOR		D,E,F
Q7003	or UMX1N-W	PAIR TRANSISTOR		D,E,F
Q7003	or HN1C01FU/G/-X	PAIR TRANSISTOR		D,E,F
Q7301	2SA1774/QR/-X	TRANSISTOR		
Q7301	or 2SA1836/5-6/-X	TRANSISTOR		
Q7301	or BC857BT-X	TRANSISTOR		
Q7302	CPH3101-X	TRANSISTOR		D,E,F
Q7303	2SC4617/QR/-X	TRANSISTOR		D,E,F
Q7303	or 2SC4783/5-6/-X	TRANSISTOR		D,E,F
Q7303	or BC847BT-X	TRANSISTOR		D,E,F
⚠ D101	SB007W03Q-X	SB DIODE		
⚠ D101	or RB715F-X	SB DIODE		
D102	UDZS7.5B-X	Z DIODE		
D103	1SS355-X	SI DIODE		
D104	1SS355-X	SI DIODE		
D4001	DAN222-X	SI DIODE		
D5201	1SS355-X	SI DIODE		
D6301	RB160M-30-X	SB DIODE		
D6601	RB480Y-W	SB DIODE		
D6602	RB480Y-W	SB DIODE		
D6616	UDZS7.5B-X	Z DIODE		

⚠ Symbol No.	Part No.	Part Name	Description	Local
D6701	CRS09-X	SB DIODE		
D6702	CRS09-X	SB DIODE		
C103	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C104	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C105	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C107	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C108	NBE21AM-225X	TA E CAPACITOR	2.2uF 10V M	
C109	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C110	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C112	NEA70JM-226X	E CAPACITOR	22uF 6.3V M	
C113	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C114	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C115	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C116	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C118	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C119	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C120	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C121	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C122	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C123	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C124	NDC31HJ-120X	C CAPACITOR	12pF 50V J	
C125	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C126	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C127	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	
C128	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C129	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	
C131	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C132	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C133	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C134	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C138	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C140	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C142	NDC31HJ-3R0X	C CAPACITOR	3pF 50V J	
C1201	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C1202	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1205	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C1206	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1601	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C1602	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C1603	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1604	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1605	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C1606	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
C1607	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C1608	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C1609	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C1610	NCB31HK-681X	C CAPACITOR	680pF 50V K	
C1611	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1612	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C1613	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	
C1614	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1615	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1616	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1617	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1618	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1619	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1620	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C1621	NBP51EM-106X	TA E CAPACITOR	10uF 25V M	
C1622	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1623	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1624	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2001	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2002	NFV91HJ-183X	MPPS CAPACITOR	0.018uF 50V J	
C2003	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C2004	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C2005	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2021	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C2022	NBE20JM-156X	TA E CAPACITOR	15uF 6.3V M	
C2023	NBP21CM-105X	TA E CAPACITOR	1uF 16V M	
C2024	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C2025	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2026	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C2027	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C2028	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2029	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2031	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C2032	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C2033	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C2034	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C2035	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C2036	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2038	NCB21CK-474X	C CAPACITOR	0.47uF 16V K	
C2040	NDC31HJ-680X	C CAPACITOR	68pF 50V J	
C2051	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C2071	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C2072	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C2401	NEA70GM-476X	E CAPACITOR	47uF 4V M	D,E,F
C2402	NCB21CK-105X	C CAPACITOR	1uF 16V K	D,E,F
C2403	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	D,E,F
C2404	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	D,E,F
C3506	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3507	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3508	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3509	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C3510	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C3512	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C3513	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C3514	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C3515	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3516	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3902	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C3903	NDC31HJ-3R0X	C CAPACITOR	3pF 50V J	
C4002	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4003	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4004	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4005	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4007	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4008	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4009	NDC31HG-100X	C CAPACITOR	10pF 50V G	
C4010	NDC31HG-100X	C CAPACITOR	10pF 50V G	
C4012	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4013	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4014	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4015	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4016	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4017	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4018	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4019	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	D,E,F
C4020	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	D,E,F
C4021	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4023	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4024	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4025	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4026	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C4027	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4028	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4029	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4030	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4031	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4032	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4033	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4034	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4035	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4036	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4037	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4038	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4039	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4040	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4044	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4045	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4046	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C4047	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4048	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4049	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C4201	NEA71HM-225X	E CAPACITOR	2.2uF 50V M	
C4202	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4203	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4205	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C4206	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4207	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C4208	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4209	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4210	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C4211	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4251	NEA71HM-335X	E CAPACITOR	3.3uF 50V M	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C4252	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4253	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C4254	NCB31EK-153X	C CAPACITOR	0.015uF 25V K	
C4256	NEA71CM-106X	E CAPACITOR	10uF 16V M	
C4502	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C4503	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	
C4504	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	
C4505	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C4506	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C4507	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4508	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4509	NBE21AM-106X	TA E CAPACITOR	10uF 10V M	
C4510	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4702	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
C4703	NDC31HJ-5R0X	C CAPACITOR	5pF 50V J	
C4704	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C4705	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C4706	NEA70GM-107X	E CAPACITOR	100uF 4V M	
C4707	NEA70JM-226X	E CAPACITOR	22uF 6.3V M	
C4708	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C4709	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C4713	NEA70JM-226X	E CAPACITOR	22uF 6.3V M	
C4714	NEA70GM-107X	E CAPACITOR	100uF 4V M	
C4715	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C4716	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
C4717	NDC31HJ-5R0X	C CAPACITOR	5pF 50V J	
C5201	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C5202	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C5203	NBP21CM-685X	TA E CAPACITOR	6.8uF 16V M	
C5204	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C5205	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5207	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5209	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5211	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5212	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5213	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5214	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5215	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C5216	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C5218	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
C5219	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C5220	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5221	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C5222	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5223	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5224	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C5225	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5226	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5231	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6002	NEA71EM-106X	E CAPACITOR	10uF 25V M	
C6004	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6005	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6006	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6007	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6008	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6009	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C6010	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C6011	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6012	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C6013	NCB21CK-154X	C CAPACITOR	0.15uF 16V K	
C6014	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6015	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6016	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C6017	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6018	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C6019	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6020	NCB21CK-224X	C CAPACITOR	0.22uF 16V K	
C6021	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6101	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6102	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6105	NCB31HK-681X	C CAPACITOR	680pF 50V K	
C6110	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C6201	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6202	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6203	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M	
C6205	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C6210	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C6301	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C6302	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C6303	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M	
C6305	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C6307	NEA71CM-106X	E CAPACITOR	10uF 16V M	
C6310	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C6401	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6402	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6501	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6502	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6602	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6603	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6606	NCB11EK-105X	C CAPACITOR	1uF 25V K	
C6607	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6610	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C6616	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6701	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C6702	NCB41CK-106X	C CAPACITOR	10uF 16V K	
C6711	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C6802	NCF21CZ-105X	C CAPACITOR	1uF 16V Z	
C6803	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6811	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C7001	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	D,E,F
C7002	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	D,E,F
C7003	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	D,E,F
C7004	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	D,E,F
C7005	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	D,E,F
C7006	NCB11EK-105X	C CAPACITOR	1uF 25V K	D,E,F
C7007	NCB11EK-105X	C CAPACITOR	1uF 25V K	D,E,F
C7008	NCB11EK-105X	C CAPACITOR	1uF 25V K	D,E,F
C7302	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	D,E,F
C7303	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C7304	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
R101	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R102	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R103	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R105	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R106	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R107	NRVA63D-153X	CMF RESISTOR	15kΩ 1/16W D	
R108	NRVA63D-243X	CMF RESISTOR	24kΩ 1/16W D	
R109	NRVA63D-183X	CMF RESISTOR	18kΩ 1/16W D	
R110	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R111	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R112	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R113	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R114	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R115	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R117	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R118	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R119	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R120	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R121	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R122	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
R123	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R124	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R125	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R126	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R127	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R128	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R129	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R130	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R131	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R132	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R133	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R134	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R135	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R136	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R137	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R138	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R139	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R140	NRSA63J-753X	MG RESISTOR	75kΩ 1/16W J	
R141	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R142	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R143	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R144	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R145	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R146	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R147	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R148	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R149	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R150	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R151	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R152	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R153	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R154	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R155	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
⚠R156	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R157	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R158	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R159	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R161	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R162	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R163	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R164	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R165	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R166	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R167	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R168	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R169	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R170	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R171	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R172	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R173	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R174	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R175	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R176	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R177	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R178	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R179	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R180	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1601	NRV142F-R33X	CMF RESISTOR	0.33Ω 1/4W F	
R1602	NRV142F-R33X	CMF RESISTOR	0.33Ω 1/4W F	
R1603	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R1604	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R1605	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1606	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1607	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1608	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J	
R1609	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1610	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1611	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R1612	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R1613	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1615	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R1616	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R1617	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R1618	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R1619	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R1620	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1621	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R1622	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R1624	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R1625	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R1626	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1627	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R1628	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1643	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R2001	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R2002	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R2003	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R2004	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R2005	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R2006	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R2011	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R2012	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R2021	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R2022	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R2023	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	
R2024	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R2025	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R2027	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R2028	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R2030	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R2031	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R2051	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R2071	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R2072	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R2401	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	D,E,F
R2402	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	D,E,F
R2403	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	D,E,F
R3501	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R3502	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3506	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3507	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3508	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R3901	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R3902	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3903	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R4001	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R4002	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R4003	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R4004	NRSA63D-153X	MG RESISTOR	15kΩ 1/16W D	
R4009	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	
R4010	NRSA63D-153X	MG RESISTOR	15kΩ 1/16W D	D,E,F
R4013	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R4014	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4015	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R4019	NRSA63D-822X	MG RESISTOR	8.2kΩ 1/16W D	
R4020	NRSA63D-471X	MG RESISTOR	470Ω 1/16W D	
R4021	NRSA63D-181X	MG RESISTOR	180Ω 1/16W D	
R4022	NRSA63D-182X	MG RESISTOR	1.8kΩ 1/16W D	
R4025	NRSA63D-222X	MG RESISTOR	2.2kΩ 1/16W D	
R4026	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R4027	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R4028	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R4029	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	D,E,F
R4032	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R4033	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R4034	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R4035	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R4036	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R4037	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R4038	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R4039	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R4040	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J	
R4201	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4202	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R4203	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R4204	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R4205	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R4206	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4207	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R4208	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R4209	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R4210	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R4211	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J	
R4214	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R4215	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R4216	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4217	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R4218	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R4219	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R4220	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R4221	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R4222	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R4223	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R4224	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R4251	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R4252	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4253	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4254	NRSA63J-684X	MG RESISTOR	680kΩ 1/16W J	
R4255	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R4256	NRSA63J-824X	MG RESISTOR	820kΩ 1/16W J	
R4257	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R4258	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R4259	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R4262	NRSA63J-302X	MG RESISTOR	3kΩ 1/16W J	
⚠R4501	NRSA63J-6R8X	MG RESISTOR	6.8Ω 1/16W J	
⚠R4502	NRSA63J-6R8X	MG RESISTOR	6.8Ω 1/16W J	
⚠R4503	NRSA63J-6R8X	MG RESISTOR	6.8Ω 1/16W J	
⚠R4504	NRSA63J-6R8X	MG RESISTOR	6.8Ω 1/16W J	
R4505	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4507	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R4508	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R4509	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R4516	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R4527	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R4701	NRSA63D-561X	MG RESISTOR	560Ω 1/16W D	
R4703	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R4704	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R4706	NRSA63D-680X	MG RESISTOR	68Ω 1/16W D	
R4707	NRSA63D-561X	MG RESISTOR	560Ω 1/16W D	
R4709	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R4710	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R4712	NRSA63D-680X	MG RESISTOR	68Ω 1/16W D	
R4713	NRSA63D-680X	MG RESISTOR	68Ω 1/16W D	
R5201	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5203	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5204	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5205	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5206	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5208	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R5212	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R5213	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5214	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J	
R5215	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R5218	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R5219	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R6001	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6002	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R6003	NRVA63D-912X	CMF RESISTOR	9.1kΩ 1/16W D	
R6004	NRVA63D-681X	CMF RESISTOR	680Ω 1/16W D	
R6005	NRVA63D-153X	CMF RESISTOR	15kΩ 1/16W D	
R6008	NRVA63D-103X	CMF RESISTOR	10kΩ 1/16W D	
R6011	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R6012	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R6015	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6021	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R6024	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R6025	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6026	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6027	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6028	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6029	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6036	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6103	NRVA63D-223X	CMF RESISTOR	22kΩ 1/16W D	
R6104	NRVA63D-103X	CMF RESISTOR	10kΩ 1/16W D	
R6203	NRVA63D-103X	CMF RESISTOR	10kΩ 1/16W D	
R6204	NRVA63D-123X	CMF RESISTOR	12kΩ 1/16W D	
R6303	NRVA63D-183X	CMF RESISTOR	18kΩ 1/16W D	
R6304	NRVA63D-472X	CMF RESISTOR	4.7kΩ 1/16W D	
R6306	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6307	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6314	NRS12BK-R47W	MG RESISTOR	0.47Ω 1/2W K	
R6401	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6502	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R6603	NRVA63D-683X	CMF RESISTOR	68kΩ 1/16W D	
R6604	NRVA63D-392X	CMF RESISTOR	3.9kΩ 1/16W D	
R6605	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J	
R6606	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R6612	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R6613	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R6614	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R6616	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R6702	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J	
R6704	NRVA63D-123X	CMF RESISTOR	12kΩ 1/16W D	
R6706	NRZ0058-R20X	MG RESISTOR	0.2Ω	
R6707	NRS016J-121X	MG RESISTOR	120Ω 1W J	
R6708	NRS016J-121X	MG RESISTOR	120Ω 1W J	
R6709	NRS016J-121X	MG RESISTOR	120Ω 1W J	
R6710	NRVA63D-823X	CMF RESISTOR	82kΩ 1/16W D	
R6711	NRVA63D-333X	CMF RESISTOR	33kΩ 1/16W D	
R6713	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R6715	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R6803	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R6804	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R6812	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R6961	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7001	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	D,E,F
R7002	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	D,E,F
R7003	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	D,E,F
R7004	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	D,E,F
R7005	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	D,E,F
R7006	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	D,E,F
R7007	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	D,E,F
R7008	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	D,E,F
R7009	NRSA63D-332X	MG RESISTOR	3.3kΩ 1/16W D	D,E,F
R7010	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	D,E,F
R7011	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	D,E,F
R7012	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	D,E,F
R7013	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	D,E,F
R7014	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	D,E,F
R7015	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	D,E,F
R7016	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	D,E,F
R7017	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	D,E,F
R7301	NRSA63D-102X	MG RESISTOR	1kΩ 1/16W D	
R7303	NRVA63D-821X	CMF RESISTOR	820Ω 1/16W D	
R7310	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	A,B,C
R7311	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	D,E,F
R7312	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	D,E,F
R7313	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	D,E,F
RA101	NRZ0038-222X	NET RESISTOR	2.2kΩ	
RA102	NRZ0038-222X	NET RESISTOR	2.2kΩ	
RA103	NRZ0038-222X	NET RESISTOR	2.2kΩ	
RA104	NRZ0038-222X	NET RESISTOR	2.2kΩ	
RA107	NRZ0038-222X	NET RESISTOR	2.2kΩ	
RA108	NRZ0038-222X	NET RESISTOR	2.2kΩ	
RA109	NRZ0038-474X	NET RESISTOR	470kΩ	
RA110	NRZ0038-474X	NET RESISTOR	470kΩ	
RA111	NRZ0038-474X	NET RESISTOR	470kΩ	
RA112	NRZ0038-104X	NET RESISTOR	100kΩ	
RA6020	NRZ0038-102X	NET RESISTOR	1kΩ	
L101	NQL365K-220X	COIL	22uH K	
L1601	NQL144M-1R0X	P COIL	1uH M	
L1602	NQL144K-100X	P COIL	10uH K	
L2001	NQL144K-470X	P COIL	47uH K	
L2003	NQL034K-470X	P COIL	47uH K	
L2004	NQR0406-003X	FERRITE BEADS		
L2005	NQR0406-003X	FERRITE BEADS		
L2021	NQL315K-470X	COIL	47uH K	
L2022	NQR0406-003X	FERRITE BEADS		
L2023	NQR0406-003X	FERRITE BEADS		
L2051	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L2052	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L2071	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L2072	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L2401	NQL315K-470X	COIL	47uH K	D,E,F
L3502	NQL315K-220X	COIL	22uH K	
L3503	NQL085J-5R6X	COIL	5.6uH J	
⚠ L4001	NQL365K-220X	COIL	22uH K	
⚠ L4002	NQL365K-220X	COIL	22uH K	
L4201	NQR0006-001X	FERRITE BEADS		
L4501	NQR0006-001X	FERRITE BEADS		
L4502	NQL034K-220X	P COIL	22uH K	
L4701	NQL365K-220X	COIL	22uH K	
L5201	NQL315K-220X	COIL	22uH K	
L5202	NQL315K-220X	COIL	22uH K	
L5203	NQL315K-220X	COIL	22uH K	
L5204	NQL315K-220X	COIL	22uH K	
L5205	NQR0129-002X	FERRITE BEADS		
L5206	NQR0129-002X	FERRITE BEADS		
L6001	NQL64EM-100X	COIL	10uH M	
L6002	NQL64EM-100X	COIL	10uH M	
L6101	NQL64EM-330X	COIL	33uH M	
L6201	NQL64EM-470X	COIL	47uH M	
L6301	NQL52EM-220X	COIL	22uH M	
L6401	NQLZ011-470X	COIL	47uH M	
L6501	NQLZ011-470X	COIL	47uH M	
L6601	NQLZ011-221X	COIL	220uH M	
L6701	NQL73EM-100X	COIL	10uH M	
L7001	NQL365K-220X	COIL	22uH K	D,E,F
L7002	NQL365K-220X	COIL	22uH K	D,E,F
L7301	NQL144K-100X	P COIL	10uH K	
CN1	QGF0507F3-10X	CONNECTOR	FFC/FPC (1-10)	
CN2	QGF0508F1-14X	CONNECTOR	FFC/FPC (1-14)	
CN3	QGF0505F2-18X	CONNECTOR	FFC/FPC (1-18)	
CN4	QGA1201F2-02X	CONNECTOR	W-B (1-2)	

⚠ Symbol No.	Part No.	Part Name	Description	Local
CN5	QGF0507F3-11X	CONNECTOR	FFC/FPC (1-11)	
CN6	QGA1201C2-02X	CONNECTOR	W-B (1-2)	
CN7	QGF0507F3-11X	CONNECTOR	FFC/FPC (1-11)	
CN8	QGA1201C2-02X	CONNECTOR	W-B (1-2)	
CN12	QGA1201F2-03X	CONNECTOR	W-B (1-3)	
CN13	QGF0507F4-14X	CONNECTOR	FFC/FPC (1-14)	
CN15	QGF0507F3-24X	CONNECTOR	FFC/FPC (1-24)	
CN16	QGF0508F1-25X	CONNECTOR	FFC/FPC (1-25)	D,E,F
CN18	QGF0503C1-13X	CONNECTOR	FFC/FPC (1-13)	
CN22	QGF0507F3-14X	CONNECTOR	FFC/FPC (1-14)	
CN25	QGB0801M1-20X	CONNECTOR	B-B (1-20)	
CN27	QGA1201C2-02X	CONNECTOR	W-B (1-2)	D,E,F
CN28	QGA1002F1-10X	CONNECTOR	W-B (1-10)	
⚠ F6001	NMFZ007-2R5X-K	FUSE	2.5A 24V	
⚠ F6002	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6004	NMFZ007-R40X-K	FUSE	0.4A 50V	
⚠ F6005	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6006	NMFZ015-2R0X-M	FUSE	2A	
⚠ F6007	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F6008	NMFZ007-1R25X-K	FUSE	1.25A 32V	
⚠ F7301	NMFZ007-R50X-K	FUSE	0.5A 50V	
⚠ J101	QAB0050-001	LI BATTERY		
J504	LY33041-001A	JACK UNIT		
J505	QND0068-001	S JACK		
SD1	LY43421-001A	SHIELD PLATE		
WR1	WJV0039-001A	E-PRIMARY WIRE	JP2001/2002-JP2003/2004	
X101	NAX0571-001	CRYSTAL	16.000MHz	
X102	NAX0267-001X	CRYSTAL	32.768KHz	
X4001	QAX0708-001	CRYSTAL	28.375MHz	
OT1	LY30016-049A	SPACER-A		
OT2	PU59915-105	#500SPACER0.01		
OT3	PU59915-105	#500SPACER0.01		

CCD BOARD ASSEMBLY <02>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB10400A2-02	CCD BOARD ASSY		
Q5301	2SC3931/CD/-X	TRANSISTOR		
Q5301 or	2SC4774/RS/-X	TRANSISTOR		
C5301	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5302	NBP21EM-155X	TA E CAPACITOR	1.5uF 25V M	
C5303	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C5304	NCF31EZ-104X	C CAPACITOR	0.1uF 25V Z	
C5305	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
R5301	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R5302	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
CN5301	QGF0505F1-14X	CONNECTOR	FFC/FPC (1-14)	

MONITOR BOARD ASSEMBLY <07> [D, E, F]

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW1	YB20935A	MONITOR BOARD ASSY		
IC7601	MN5814	IC		
IC7602	BA4558F-X	IC		
IC7603	SN74AHC1G04K-X	IC		
IC7604	DN8797MS-X	IC		
Q7501	2SD1664/QR/-W	TRANSISTOR		
Q7502	2SD1664/QR/-W	TRANSISTOR		
Q7503	DTA144EE-X	DIGI TRANSISTOR		
Q7503 or	UN9113J-X	DIGI TRANSISTOR		
Q7503 or	RN2104-X	DIGI TRANSISTOR		
Q7503 or	BCR198T-X	DIGI TRANSISTOR		
Q7504	DTC144EE-X	DIGI TRANSISTOR		
Q7504 or	UN9213J-X	DIGI TRANSISTOR		
Q7504 or	RN1104-X	DIGI TRANSISTOR		
Q7504 or	BCR148T-X	DIGI TRANSISTOR		
Q7601	2SC4617/QR/-X	TRANSISTOR		
Q7601 or	BC847BT-X	TRANSISTOR		
Q7602	2SA1774/QR/-X	TRANSISTOR		
Q7602 or	BC857BT-X	TRANSISTOR		
Q7603	2SC4617/QR/-X	TRANSISTOR		
Q7603 or	BC847BT-X	TRANSISTOR		
Q7604	2SA1774/QR/-X	TRANSISTOR		
Q7604 or	BC857BT-X	TRANSISTOR		
Q7605	DTA144EE-X	DIGI TRANSISTOR		
Q7605 or	UN9113J-X	DIGI TRANSISTOR		
Q7605 or	RN2104-X	DIGI TRANSISTOR		
Q7605 or	BCR198T-X	DIGI TRANSISTOR		
Q7606	DTA144EE-X	DIGI TRANSISTOR		
Q7606 or	UN9113J-X	DIGI TRANSISTOR		
Q7606 or	RN2104-X	DIGI TRANSISTOR		
Q7606 or	BCR198T-X	DIGI TRANSISTOR		
Q7607	DTA144EE-X	DIGI TRANSISTOR		
Q7607 or	UN9113J-X	DIGI TRANSISTOR		
Q7607 or	RN2104-X	DIGI TRANSISTOR		
Q7607 or	BCR198T-X	DIGI TRANSISTOR		
Q7608	DTC144EE-X	DIGI TRANSISTOR		
Q7608 or	UN9213J-X	DIGI TRANSISTOR		
Q7608 or	RN1104-X	DIGI TRANSISTOR		
Q7608 or	BCR148T-X	DIGI TRANSISTOR		
D7601	MA365-X	VARI CAP DIODE		
D7602	RB471E-W	SB DIODE		
D7603	UDZS5.1B-X	Z DIODE		
D7604	MA741WA-X	SB DIODE		
C7501	NCZ1016-120X	C CAPACITOR		
C7502	NCB21EK-273X	C CAPACITOR	0.027uF 25V K	
C7503	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7504	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C7601	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C7602	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7606	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7607	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7608	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7609	NBP41CM-106X	TA E CAPACITOR	10uF 16V M	
C7610	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C7611	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7612	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7613	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7614	NCB21CK-334X	C CAPACITOR	0.33uF 16V K	
C7615	NDC31HJ-331X	C CAPACITOR	330pF 50V J	
C7616	NDC31HJ-560X	C CAPACITOR	56pF 50V J	
C7617	NDC31HJ-220X	C CAPACITOR	22pF 50V J	
C7618	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7619	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
C7620	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
C7621	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7622	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C7623	NCB31EK-682X	C CAPACITOR	6800pF 25V K	
C7624	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C7626	NBP41EM-475X	TA E CAPACITOR	4.7uF 25V M	
C7627	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
R7501	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7502	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7503	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7601	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	
R7602	NRSA63D-752X	MG RESISTOR	7.5kΩ 1/16W D	
R7603	NRSA63D-333X	MG RESISTOR	33kΩ 1/16W D	
R7604	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R7605	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R7606	NRSA63D-153X	MG RESISTOR	15kΩ 1/16W D	
R7607	NRSA63D-822X	MG RESISTOR	8.2kΩ 1/16W D	
R7608	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R7610	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R7611	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7612	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R7613	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R7615	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7617	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

⚠ Symbol No.	Part No.	Part Name	Description	Local
R7618	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7621	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7622	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R7624	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R7625	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7628	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R7629	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R7630	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R7631	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7632	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R7633	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R7635	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7636	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7637	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7638	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7639	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R7640	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
R7641	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R7645	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R7646	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R7648	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R7650	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R7654	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
L7501	NQLZ010-680X	COIL	68uH	
L7502	NQL03BK-100X	P COIL	10uH K	
L7601	NQL315K-220X	COIL	22uH K	
L7604	NQL315K-220X	COIL	22uH K	
L7605	NQL085J-4R7X	COIL	4.7uH J	
T7501	NQS0056-001X	SW TARNSF		
CN7601	QGF0303F1-25W	CONNECTOR	FFC/FPC (1-25)	
CN7602	QGF0508F1-24X	CONNECTOR	FFC/FPC (1-24)	
⚠ F7501	NMFZ007-R40X-K	FUSE	0.4A 50V	
OT1	QAL0449-001	FPC	J7601-J7603	

E.VF BOARD ASSEMBLY <60>

⚠ Symbol No.	Part No.	Part Name	Description	Local
PW	LY41289-006A	E.VF BOARD ASSY		
IC7001	BA7149F-XE	IC		
Q7001	2SD968A(RS)	PH TRANSISTOR		
Q7002	2SA1748(QR)	PH TRANSISTOR		
Q7003	2SA1748(QR)	PH TRANSISTOR		
D7001	MA142WA	DIODE		
R7002	NRSA02J-3R9X	MG RESISTOR	3.9Ω 1/10W J	
R7003	NRVA02D-185X	CMF RESISTOR	15kΩ 1/10W D	
R7005	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7006	NRSA02J-113X	MG RESISTOR	11kΩ 1/10W J	
R7007	NRSA02J-330X	MG RESISTOR	33Ω 1/10W J	
R7008	NRSA02J-394X	MG RESISTOR	390kΩ 1/10W J	
R7009	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
R7010	NRVA02D-104X	CMF RESISTOR	100kΩ 1/10W D	
R7011	NRSA02J-223X	MG RESISTOR	22kΩ 1/10W J	
R7012	NRSA02J-221X	MG RESISTOR	220Ω 1/10W J	
R7013	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R7014	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R7015	NRSA02J-223X	MG RESISTOR	22kΩ 1/10W J	
R7016	NRSA02J-122X	MG RESISTOR	1.2kΩ 1/10W J	
R7017	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
R7018	NRSA02J-223X	MG RESISTOR	22kΩ 1/10W J	
R7019	NRSA02J-120X	MG RESISTOR	12Ω 1/10W J	
R7020	NRSA02J-685X	MG RESISTOR	6.8MΩ 1/10W J	
R7021	NRSA02J-475X	MG RESISTOR	4.7MΩ 1/10W J	
R7022	NRSA02J-475X	MG RESISTOR	4.7MΩ 1/10W J	
R7023	NRSA02J-564X	MG RESISTOR	560kΩ 1/10W J	
R7024	NRSA02J-105X	MG RESISTOR	1MΩ 1/10W J	
R7025	NRSA02J-275X	MG RESISTOR	2.7MΩ 1/10W J	
R7026	NRSA02J-275X	MG RESISTOR	2.7MΩ 1/10W J	
VR7001	NVP0001-221X	TRIM RESISTOR	V.SIZE	
VR7002	NVP0001-225X	TRIM RESISTOR	BRIGHT	
VR7003	PERE0595-565	V RESISTOR	FOCUS	
C7001	QFV11HJ-104A	F CAPACITOR	0.1uF 50V J	
C7002	QEDP1AM-227	E CAPACITOR	220uF 10V M	
C7003	QEDP1AM-227	E CAPACITOR	220uF 10V M	
C7004	QEDP1AM-227	E CAPACITOR	220uF 10V M	
C7005	NCF21CZ-105X	CAPACITOR	1uF 16V Z	
C7006	NCB21HK-152X	CAPACITOR	0.0015uF 50V K	
C7007	NCB11CK-105X	CAPACITOR	1uF 16V K	
C7008	NCF21CZ-105X	CAPACITOR	1uF 16V Z	
C7009	PECA1131-A107	E CAPACITOR	100uF 10V	
C7010	CM316UJ472J100A	CAPACITOR	0.0056uF 100V	
C7011	NDC21HJ-180X	CAPACITOR	18pF 50V J	
C7012	QEKC1HM-105Z	E CAPACITOR	1uF 50V M	
C7013	NCF21HZ-104X	CAPACITOR	0.1uF 50V Z	
C7014	NCF21HZ-104X	CAPACITOR	0.1uF 50V Z	
C7015	QCZ0212-151	CAPACITOR	150pF 1kV K	
C7016	PECA1006	CAPACITOR	330pF 500V	
L7001	QQR0970-001	LINEARITY COIL		
L7002	PU49994-220	COIL	22uH	
L7003	PELN1101-680JY	COIL	68uH	
⚠ T7001	QQH0011-002	FB TRANS		
CN7001	B4B-ZR	CAP HOUSING		
CN7002	WJK0095-006A	WIRE ASSY,for PAL		
OT1	PU59915-105	SPACER#500,for L7001		